

**Integrated Biological and Behavioral Surveillance  
(IBBS) Survey among Female Injecting Drug Users in  
Kathmandu Valley**

**Round I**



**Ministry of Health  
National Centre for AIDS and STD Control  
Teku, Kathmandu  
2016**

## **Field Work Conducted by:**

School of Planning, Monitoring, Evaluation and Research  
Kalanki, Kathmandu

The IBBS Surveys are part of the National HIV Surveillance Plan, led by NCASC. The field work of this survey was carried out by School of Planning, Monitoring, Evaluation and Research and the quality assurance by National Public Health Laboratory with technical and financial assistance from the Save the Children US/Global Fund.

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This was the first round of Integrated Biological and Behavioral Surveillance Survey among Female Injecting Drug Users of Kathmandu Valley, as part of the National HIV Surveillance Plan. The survey was conducted with the technical and financial support from Save the Children US/Global Fund and led by National Centre for AIDS and STD Control (NCASC). It aimed at generating the baseline evidences about the prevalence of HIV, Syphilis, Hepatitis B and Hepatitis C among the Female Injecting Drug Users; their high risk behaviors; program exposures and exploring strategic information on HIV and STI needed to monitor and guide the National HIV and AIDS program.

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We believe that the findings of this survey will be valuable for the policy makers, program designers, planners and implementing agencies to plan the new programs and revise the strategies to address the HIV epidemic of Nepal.

**Dr. Tarun Paudel**  
**Director, NCASC**

## ACRONYMS

AIDS	Acquired Immuno-Deficiency Syndrome
ART	Anti-Retroviral Therapy
CAC	Community Action Centre
CHBC	Community Home Based Care
DIC	Drop-in-Centre
EQA	External Quality Assessment
EQAS	External Quality Assurance Scheme
FP	Family Planning
FSW	Female Sex Worker
GOs	Governmental Organizations
HIV	Human Immuno-deficiency Virus
HTC	HIV Testing and Counseling
IBBS	Integrated Biological and Behavioral Surveillance
ID	Identification Number
IDU	Injecting Drugs Users
IEC	Information, Education and Communication
IUD	Intrauterine Device
KAP	Key Affected Populations
MSM	Men who have Sex with Men
NCASC	National Centre for AIDS and STD Control
NGO	Non-Governmental Organization
NHRC	Nepal Health Research Council
NPHL	National Public Health Laboratory
OE	Outreach Educator
PE	Peer Educator
PHC	Primary Health Care
PLHIV	People living with HIV
PMTCT	Prevention of Mother to Child Transmission
PWID	People Who Inject Drugs
RPR	Rapid Plasma Reagin
SD	Standard deviation
SITWG	Strategic Information Technical Working Group
SLC	School Leaving Certificate
SPMER	School of Planning Monitoring, Evaluation and Research
SPSS	Statistical Package for the Social Sciences
STI	Sexually Transmitted Infection
TPHA	Treponema Pallidum Hemagglutination Assay
TPPA	Treponema Pallidum Particle Agglutination

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## **EXECUTIVE SUMMARY**

This is the first round of the IBBS survey conducted among Female Injecting Drug Users in Kathmandu Valley (Kathmandu, Lalitpur and Bhaktapur districts). A total of 160 females of 16 years and above who had been injecting drugs for at least three months preceding the survey were recruited randomly using Network sampling method.

The fieldwork for the survey was conducted from April to July 2016. The survey was undertaken primarily to track the prevalence of HIV, Syphilis, Hepatitis B and Hepatitis C infection among Female Injecting Drug Users. The aim of the survey was to find out the baseline status of comprehensive knowledge of HIV/AIDS, risky sexual and injecting behaviors among Female Injecting Drug Users, their exposure to various HIV/AIDS prevention, treatment, care and support programs. The Information was collected using tablet based structured questionnaire and the prevalence of HIV, Syphilis, Hepatitis B and Hepatitis C was tested by using rapid kits.

### **KEY FINDINGS**

#### **Socio-Demographic Characteristics**

Most of the Female Injecting Drug Users (59%) were of young age below 25 years with an average age of 24.4 years. The Female Injecting Drug Users marrying at the young age of 19 years and below was 72 percent. Almost half (49%) of the Female Injecting Drug Users had completed secondary level of education, whereas 9 percent of them were illiterate. Over two thirds of the respondents (68%) were Janajati.

#### **Prevalence of HIV, Syphilis, Hepatitis B and Hepatitis C**

The prevalence of Hepatitis C infection among the Female Injecting Drug Users was 22 percent followed by 8.8 percent of HIV, 7.5 percent of Syphilis and 1.9 percent of Hepatitis B. The co-infection of HIV and Hepatitis C (9%) was quite common trailed by co-infection of HIV and Syphilis (3%) and Syphilis and HCV co-infection (3%). The duration of Injecting drug use and the HIV and Hepatitis C infection was found to be associated significantly ( $p < 0.05$ ). Among the 14 respondents having HIV 8 were identified before the survey and 6 of the HIV positive females were recognized during the survey process. The newly positive were linked with the national program for treatment, care and support from the counselor of survey.

#### **Child Birth and Use of Family Planning**

A large majority (80%) of married Female Injecting Drug Users had given birth to a live child. An overwhelming majority (98%) of them had heard about family planning. The family planning methods heard most commonly were condom (92%), Depo-Provera (65%) and pills (48%). One third of the Female Injecting Drug Users had ever used family planning method. The most frequently used methods were condom (52%) and Depo-Provera (21%).

#### **Sexual Behavior and Condom Use**

Thirty percent of the Female Injecting Drug Users had their first sex at the age 15 years and below. The Female Injecting Drug Users having multiple sex partners were 32 percent and 19 percent of them had sexual intercourse with men in exchange of

money or drugs in the last 12 months preceding the survey. Sixty three percent of them had two or more male partners and majority of them (74%) had used a condom during last sex with different partners.

### **Use of Alcohol and Drugs**

Almost half of the respondents had taken alcohol everyday during the last month preceding the survey. Thirty four percent of the Female Injecting Drug Users had been injecting drugs for more than 5 years whereas 37 percent of them had been doing so for less than 2 years. Most of the Female Injecting Drug Users (59%) had started injecting drugs at a very young age, before they reached 20 years. The average age to start injecting drug use was 20 years. During the last injection, 42 percent of the Female Injecting Drug Users used a needle/syringe, which they had purchased themselves. Around three fifths of the Female Injecting Drug Users (59%) used to inject once a day and 16 percent of them shared needle/syringe with one or more partners.

### **Knowledge of STIs, HIV/AIDS and HCV**

A large majority (95% and 99%) of the Female Injecting Drug Users had heard of STIs and HIV/AIDS. The Female Injecting Drug Users who had heard of STIs were further assessed about their knowledge of STI symptoms. The most common symptoms of STI they knew was about foul smelling vaginal discharge (74%) and itching around vaginal area (72%). Only a fifth of the respondents (21%) correctly identified all three **A**, **B** and **C** as HIV preventive measures whereas just above a quarter nearly of the respondents (27%) were aware of all the five major indicators i.e., **BCDEF**. Most of the Female Injecting Drug Users (79%) had ever heard of HCV infection. Among those who ever heard of Hepatitis C infection, 71 percent of them knew that Hepatitis C could be transmitted through sex.

### **Exposure to STI/HIV/AIDS Program**

Majority of the Female Injecting Drug Users (78% and 73% respectively) had met PE/OE and visited DIC in the last 12 months before the survey. However, very few of them had visited the STI Clinic (8% in the past 12 months) and HTC center (19% over the past year). Majority of them (73%) had discussion on safe injecting behavior with PE/OE whereas 80 percent visited the DIC to learn about safe injecting behavior (80%).

### **Conclusion**

More than half of the Female Injecting Drug Users were of young age. The early age marriage and the early age debut of sex and injecting drug use were prevalent among notable percent of Female Injecting Drug Users. The Hepatitis C, HIV and Syphilis infection were found to be alarming. The risky injecting behaviors were prevalent among Female Injecting Drug Users as 6 percent of them had used previously used needles in their last injection and 4 percent of them had used needle/syringes that had been already used by others. A notable portion (one third) of the Female Injecting Drug Users had multiple sex partners and 19 percent of them had sexual intercourse with men in exchange of money or drugs in the past year. Almost half of the PWIDs were found to be consuming alcohol daily. The large majority of Female Injecting Drug Users had heard about HIV/AIDS and STIs. However, the comprehensive knowledge of HIV among them was rather lower. Majority of Female Injecting Drug

Users had met or discussed with OE/PE and had visited DIC in the last 12 months prior to the survey.

## **Recommendations**

On the basis of findings, the survey recommended following programs and activities:

- Awareness of HIV was almost cent percent among the Female Injecting Drug Users. However, comprehensive knowledge on HIV (Knowledge of **ABC** and **BCDEF**) was found very low. *Thus, Mass-medias especially internet application like facebook and other popular applications can be used and role of GOs/NGOs could play an important role to spread the comprehensive knowledge of HIV among them.*
- Nearly one-third of the Female Injecting Drug Users had their first sex at very young age of 15 years and below. Similarly, almost three-fifth of them had started injecting drugs at very young age. *Therefore, specific program activities that target adolescents and youths should be designed to impart knowledge on sex education, drug prevention and HIV/AIDS awareness.*
- The prevalence of Hepatitis C, Syphilis and HIV among the Female Injecting Drug Users was found high; *so an immediate attention should be given to start various programs targeting Female Injecting Drug Users in the Kathmandu Valley.*
- The large proportion of Female Injecting Drugs Users are at risk of HIV as they have used needles that were already used by their friends, shared syringe with the usual sexual partner and were found to have shared needle during the last injection. *Harm reduction programs including risk of needle sharing behaviour and advocacy on practicing safer injecting behaviours should be launched.*
- As notable percent (60.9%, n=128) of female injecting drug user's male regular partner also inject drugs, *the programme of harm reduction and safer sexual behaviours targeting both the partners should be started.*
- *During the survey process, the team found that most of the female injecting drug users highly depend on male injecting users for drugs and interlinked with each other. Thus, IBBS of both male and female at a time is recommended, if possible.*

# CHAPTER I: INTRODUCTION

## 1.1 Background

Nepal's HIV epidemic is concentrated amongst the Key Affected Populations (KAPs), mainly People who Inject Drug (PWID), Men who have Sex with Men (MSM) and Transgender People (TG) (1). The existing National HIV and AIDS Strategy (2011-2016) identified People who Inject Drugs (PWIDs) as one of the key affected populations (KAPs) (1). PWIDs practice high-risk behaviors such as sharing of Needle/Syringe between injecting partners, reusing needle/syringes previously used by them or those kept in public places. These high-risk injecting behaviors including high-risk sexual behaviors and use of multiple drugs make them more prone to HIV, STIs, HBV and HCV. The Female Injecting Drug Users belonged to the group with increasing vulnerability to HIV as they share the needle with their sexual partners, involvement in sex work to support injecting behavior and sexual exploitation (2).

This is the first round of IBBS Survey among Female Injecting Drug Users in Kathmandu Valley. The findings from this survey provide information in establishing the baseline data among Female Injecting Drug Users of Kathmandu Valley that eventually help the program planners in strategic planning and targeted interventions.

## 1.2 Rationale of the survey

An article published in International Journal on Drug Policy in 2015 revealed that Female Injecting Drug Users who are among the hidden affected populations, are more prone to HIV due to their risky injecting behaviors, unprotected sex and sex selling practices. The article also uncovered that the Female Injecting Drug Users are more stigmatized than the male PWIDs (3). The survey conducted by UNODC found that Female drug users are increasingly vulnerable to HIV due to the position of female in Nepalese society. The survey also indicated that the prevention and care services are male-centric and females have limited access to these services (4).

IBBS surveys are taken as the effective second generation surveillance tools to generate evidence-based data. These surveys help in exploring both behavioral and biological data of Female Injecting Drug Users that will ultimately help in linking them to understand the emerging trends of HIV, risky sexual and injecting behaviors. The findings from these surveys are commonly used for planning HIV interventions, monitoring HIV programs, estimating and projecting the epidemic of HIV (5).

In this context, National Centre for AIDS and STD Control with the support from Save the Children US/Global Fund intended to conduct the IBBS survey among Female Injecting Drug Users. This survey aimed to provide baseline data that can be used for an enhanced and timely intervention design to combat HIV, STIs, HCV and HBV prevalent among Female Injecting Drug Users.

### **1.3 Objectives of the Survey**

This survey was carried out to fulfill the following objectives:

#### **Primary objectives**

- To track the trend in the prevalence of HIV, Syphilis, Hepatitis B and C Infection, comprehensive knowledge of HIV/AIDS, risk behaviors and uptake of interventions among Female Injecting Drug Users in the Kathmandu Valley. This report presents the baseline findings of proposed trend analysis in future.

#### **Secondary objectives**

- To collect information on various personal, social and demographic characteristics of Female Injecting Drug Users,
- To assess the level of knowledge of Female Injecting Drug Users on STIs, HIV and AIDS, Hepatitis B and Hepatitis C and knowledge on sexual and injecting behaviors among Female Injecting Drug Users.
- To explore associations between risk behaviors and infections with HIV among Female Injecting Drug Users;
- To find out the utilization of various HIV and STI prevention and control programs/services.

## CHAPTER II: METHODOLOGY

### 2.1 Implementation of the Survey

School of Planning, Monitoring, Evaluation and Research (SPMER) implemented this survey with the technical support from NCASC and Save the Children US/Global Fund and financial support from Save the Children US/Global Fund. SPMER was responsible for implementation and overall management of the survey including training of the survey team, management of field team and survey activities, laboratory testing of blood samples, clinical examination of the respondents and supervision of the activities of the survey team throughout the survey period. SPMER conducted formative assessment of Female Injecting Drug Users throughout the Kathmandu Valley and followed by data collection using tablet based structured questionnaire.

The survey was conducted in close collaboration with two networks widely working for the Injecting Drug Users; Sparsha Nepal and Drishti Nepal along with support from other organizations namely Youth Vision, Sarathi Nepal and Recovering Nepal. Data analysis and report writing was done by the technical team of SPMER in close coordination with NCASC and Save the Children US/Global Fund. External quality assurance of all the HIV positive samples and randomly selected 10 percent of all the negative samples was carried out at the National Public Health Laboratory (NPHL), Teku, Kathmandu.

### 2.2 Survey Design

The survey was a baseline of serial descriptive cross-sectional survey. It was the first round of survey for Female Injecting Drug Users in Kathmandu Valley (including Kathmandu, Lalitpur and Bhaktapur districts). Face to face interviews were conducted with each of the selected respondents to assess their sexual risk behaviors; and the biological samples were tested using venous blood/serum to determine the prevalence of HIV, Syphilis, Hepatitis B and Hepatitis C. HIV, Syphilis Hepatitis B and Hepatitis C among Female Injecting Drug Users was determined using the recent National Laboratory Guidelines for testing.

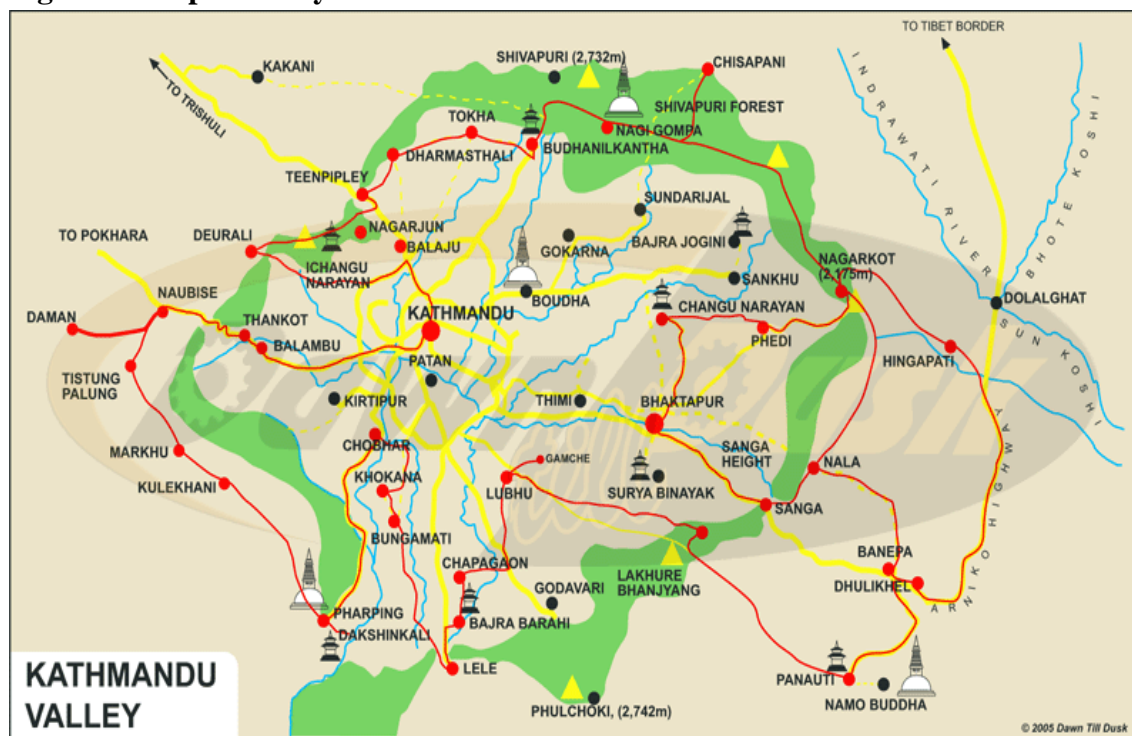
### 2.3 Survey Population and Survey Area

This survey was carried out among Female Injecting Drug Users (People who Inject Drugs) in the Kathmandu valley. PWIDs are one of the key populations affected by HIV and STIs. For the present survey, Female Injecting Drug Users are defined as **“female of 16 years and above who had been injecting drugs for at least three months prior to the date of the survey”**. The survey populations from Kathmandu valley who meet this definition were recruited as survey participants.

The clinic set up was established in Sundhara Kathmandu taking into consideration the convenience of transportation and feasibility for the survey population from all three districts.

The survey area is as given in map below:

**Figure 1: Map of Study Area.**



## 2.4 Formative Assessment

School of PMER conducted formative assessment (see annex 3) to decide the appropriate methods and sample size to conduct IBBS survey among Female Injecting Drug Users in the Kathmandu valley. The data collection of formative assessment was done using In-depth interview, key informant interview, observations and review of existing information and meeting with key stakeholders. The specific objectives of the assessment were:

- To identify the appropriate methods for IBBS among Female Injecting Drug Users.
- To describe the social networks of the Female Injecting Drug Users population
- To identify the appropriate interview location and other survey procedures
- To seek support from the concerned stakeholders on identifying the proper seeds

The formative assessment concluded that the Female Injecting Drug Users population had poor social network thus Respondent Driven Sampling (RDS) was not an appropriate method to recruit them. Therefore, the network sampling design was proposed instead of RDS and later approved by the technical team of the survey. The Network Sampling was previously used in Pakistan and other countries for similar kind of population in IBBS survey. As, there are multiple service networks working with Female Injecting Drug Users in treatment, care and support program in the

Kathmandu valley, the network sampling was found to be more feasible among Female Injecting Drug Users population. Thus, network sampling was chosen and two active networks (Sparsha Nepal in Lalitpur districts and Drishti Nepal in Kathmandu district) working directly with the Female Injecting Drug Users population for providing prevention, treatment, care and support services were taken as network operators for recruitment of Female Injecting Drug Users. Similarly, the sample size was reassessed after the findings of formative assessment. The design effect of 2 was reduced to 1.5, thus sample size was finalized as, 160.

## **2.5 Sampling Design and Sample Size**

The Network Sampling was used in this survey to recruit the 160 sample needed for this survey. Network Sampling is a probability sampling generally used in a sample surveys among rare population. This method of sampling ensures unbiased approximations when the same-targeted population units are eligible to linked to multiple selection units (6). For this, two networks working directly with the Female Injecting Drug Users population in Kathmandu valley were chosen on the basis of the most widely used prevention and support services by the Female Injecting Drug Users (like needle exchange). From these two networks, the two operators were selected for survey purpose to recruit the respondents during the survey. The two networks provided the list of Female Injecting Drug Users taking prevention, treatment, care and support services from them. The earlier respondents were consulted to invite their friends from their circle (other Female Injecting Drug Users who meet our survey criteria) who were not used to visiting the outreach centers and met OE/PE like them. Similarly, in the middle of the data collection we got to know that Female Injecting Drug Users had a good linkage with the male PWIDs. Therefore, we mobilized few male PWIDs to track their partners and other female friends who inject drugs and who fall in our survey criteria. The list was later updated to include those Female Injecting Drug Users who were not yet reached by the outreach services of the network operators. The repeated FIDUs from all sources were removed after the list was updated. The list provided by the network operators was kept confidentially and the list was given back to the operators after completion of the selection process. The systematic random sampling was done to select the 160 respondents from that list. The selected respondents were contacted by the operators and brought to the survey site for recruitment in the survey. The closest respondents in the list replaced the selected respondents who could not be reached by the operators.

## **2.6 Identification and Recruitment of Female Injecting Drug Users**

Field researchers including operators from both the networks were trained about the survey area and methods of identification of the participants. Map of the survey site was developed and provided to the researchers to facilitate them for fieldwork. A coordination meeting was organized with the most of the organizations working for Female Injecting Drug Users. Trained field mobilisers of networks were mobilized for the recruitment of Female Injecting Drug Users with guidance of operators. Survey



team established the clinic site after discussion with different stakeholder at Sundhara, Kathmandu. The selected respondents identified by the mobilisers in the field through screening questions were guided to the survey site. The selected respondents who came in contact with mobilisers/operators were screened in the survey site once again. Those who satisfactorily answered all the screening questions were briefed about the purpose, objectives and methodology of the survey. Once the selected Female Injecting Drug Users given their consent on presence of operators/mobilizers to participate in the survey, the counselor assigned the unique code and recruited them in the survey.

## **2.7 Refusals**

Each of the selected Female Injecting Drug Users was informed about the objectives of survey and the benefits and risks of participating in the survey. Each of the respondents was ensured about their right to participate or refuse at any time during the survey process. However, none of the respondents refused to take part in the survey.

## **2.8 Control of Duplication**

The survey team has implemented various measures to avoid repetition of the respondents. The counselors and operators (local mobilizers) asked various screening questions before their recruitment such as their completed age, duration of their engagement in injecting drugs and their purpose of injecting drugs. The information pertinent to the experience of undertaking procedure, blood testing for STIs, HBV and HCV and HIV, meeting with the laboratory technicians for the blood test, and the possession of an ID card with a survey number was screened by the survey team. Furthermore, the laboratory technicians and STI technicians examined the part of the body they had used to draw blood sample to avoid any duplication of the respondents.

## **2.9 Recruitment and Training of the Research Team**

Field survey team was recruited from the pool of researchers of SPMER. The researchers having similar experiences and university degree in the relevant discipline were recruited as supervisors and research assistants. Similarly, experienced lab technicians were hired for the testing of blood samples and registered nurses were recruited for the symptomatic identification of STIs and their syndromic management.

School of PMER organized one-week intensive training program for field researchers. The training covered various topics such as introduction to the IBBS survey, Female Injecting Drug Users and their population characteristics, questionnaires and ways of administering them, methods of approaching the respondents, research ethics, research protocol, counseling, rapport-building techniques and sharing of experiences of similar surveys from the past. The objectives of the survey and the sampling methodologies being adopted for selection of the sample were also explained and discussed in the training.

A significant time was assigned to train on HIV, syphilis, Hepatitis B and Hepatitis C testing and understanding sample selection techniques for External Quality Assurance System, for the team of lab technicians. In addition, the training session also included mock interviews, role-plays, and class lectures to help researchers understand the flow of questionnaire. Role-play practices were carried out assuming actual field situations. The concerned officials from NCASC, Save the Children US/Global Fund and other relevant agencies working for Female Injecting Drug Users and experts were invited to facilitate the training sessions.

## **2.10 Survey Period and Procedures**

The survey was conducted from April 2016 to August 2016. The fieldwork for this survey was carried out from 6<sup>th</sup> June 2016 to 24<sup>th</sup> June 2016 from the survey site established at Sundhara, Kathmandu. The following procedures were carried out in the survey site to gather behavioral and biological data of the Female Injecting Drug Users:-

### **2.10.1 Clinic Set-up**

A static clinic was established in a hotel at Sundhara, Kathmandu. The clinic comprised of one welcome room, four interview rooms, one counseling room, one STI clinician room, one laboratory room and one waiting room. The flow chart for the survey procedure was developed and displayed in all necessary rooms. The counselor greeted the selected Female Injecting Drug Users in the welcome room where they were briefed about the overall survey process, taken consent in the presence of operator/local mobilizers and assigned a unique code for the enrollment in the survey procedure. They were then, interviewed using the structured questionnaire in the tablet computers in the Interview room. After completion of the interview they were guided to pre-test counseling room. After the pre-test counseling, they were directed to the laboratory room. In the laboratory, blood was drawn, centrifuged for separating the serum and undergone all the tests designated for the survey. After the blood was drawn in the lab, the Female Injecting Drug Users were sent to the STI Clinician room where necessary syndromic treatment of STIs was provided as per National Guidelines on Case Management of STI (2014). Then they were sent to waiting room until the test was performed. The test result was provided to them with post-test counseling based on the findings of the test results in the post test counseling room. After that, the respondents were provided with the travel allowance and the process completed. The refrigerators/cold chain box was used to maintain the cold chain system for collected samples and test kits. The power backup facility was ensured in survey site in case of power cuts. The waste produced from the survey site were properly managed properly and disposed systematically with the help of Kathmandu Valley Hospital situated nearby the survey site. The Hygiene and Sanitation of the clinic was appropriately maintained throughout the survey in the survey site.

### **2.10.2 Clinical Procedures**

The registered nurses examined the respondents for any signs and symptoms of STI and other general health problems after completion of the interview, pre test counseling and lab test. The syndromic management of such symptoms and problems

were done providing some essential medicines according to the National Guidelines on Case Management of Sexually Transmitted Infections, 2014. The Clinicians made appropriate referrals of the identified cases that required additional treatment to concerned government hospitals or health centers.

### **2.10.3 Laboratory Procedures, Universal precaution and Waste Management**

After pre-test counseling, the lab technicians briefly clarified the respondents about the HIV testing process and took verbal consent to draw blood. Blood samples were drawn in 3-milliliter tubes using disposable syringes. The samples were tested for HIV, Syphilis, Hepatitis B and C in the laboratory set up established in the survey site. Blood samples were tested using Determine HIV1/2 as first test to detect antibodies against HIV. If the first test result was positive, a second test was performed using Uni-Gold HIV ½. In case of a tie between the first two tests, a third test was also performed using STAT PAK as a tiebreaker.

Similarly, RPR (Rapid Plasma Reagin), a test for the qualitative and quantitative technique was used. This identified the cases of history syphilis and current syphilis. RPR titre with 1:8 or more was considered active syphilis and less than that was considered as history syphilis. In addition to these, test for Hepatitis B was done using Hepacard and test of Hepatitis C was performed using HCV Tri-Dot. Necessary measures were taken to store the samples for quality control. Waste produced in the lab was collected in different color-coded dustbins and labeled containers. Needles were destroyed using needle destroyer. Waste products formed as a result of laboratory and clinical procedure was managed in accordance with the standard disposal procedures. The universal precautions were followed in the laboratory. Also, the post exposure management mechanism was established for management of possible exposures.

### **2.10.4 Survey and Laboratory ID Codes**

Confidentiality was strictly maintained throughout the survey process. Unique survey ID codes were used for recruiting the respondents to the survey. This code was used throughout the survey process to identify the recruited Female Injecting Drug Users. Each of the respondents was assigned a laboratory code that was linked to their survey ID code in order to relate behavioral and biological data. This code was also used to label all specimens for laboratory testing and for providing test results.

### **2.10.5 HIV Rapid Testing**

HIV rapid testing method was conducted at the survey site after completion of pre-test counseling by certified laboratory technicians. Rapid testing was conducted by using a serial testing scheme based on the national algorithm and approved commercial test kits. All the participants who had given consent were tested using Allere Determine HIV-1/2 rapid test kits (Specificity 99.4% and Sensitivity 100%). Non-reactive results were considered negative, and reactive results were confirmed with Uni-Gold (Trinity Biotech) HIV rapid test kit (Specificity 100% and Sensitivity 100%). If Uni-Gold results were nonreactive, results were recorded as indeterminate. In case a tie existed between first and second tests, a third test STAT PAK(Chem Bio) was used as a tiebreaker test (Specificity 99.3% and Sensitivity 100%). All participants received post-test counseling, with specific messages tailored to their test results. The ones with any reactive result or indeterminate result were referred to HIV care services and for further counseling and testing.

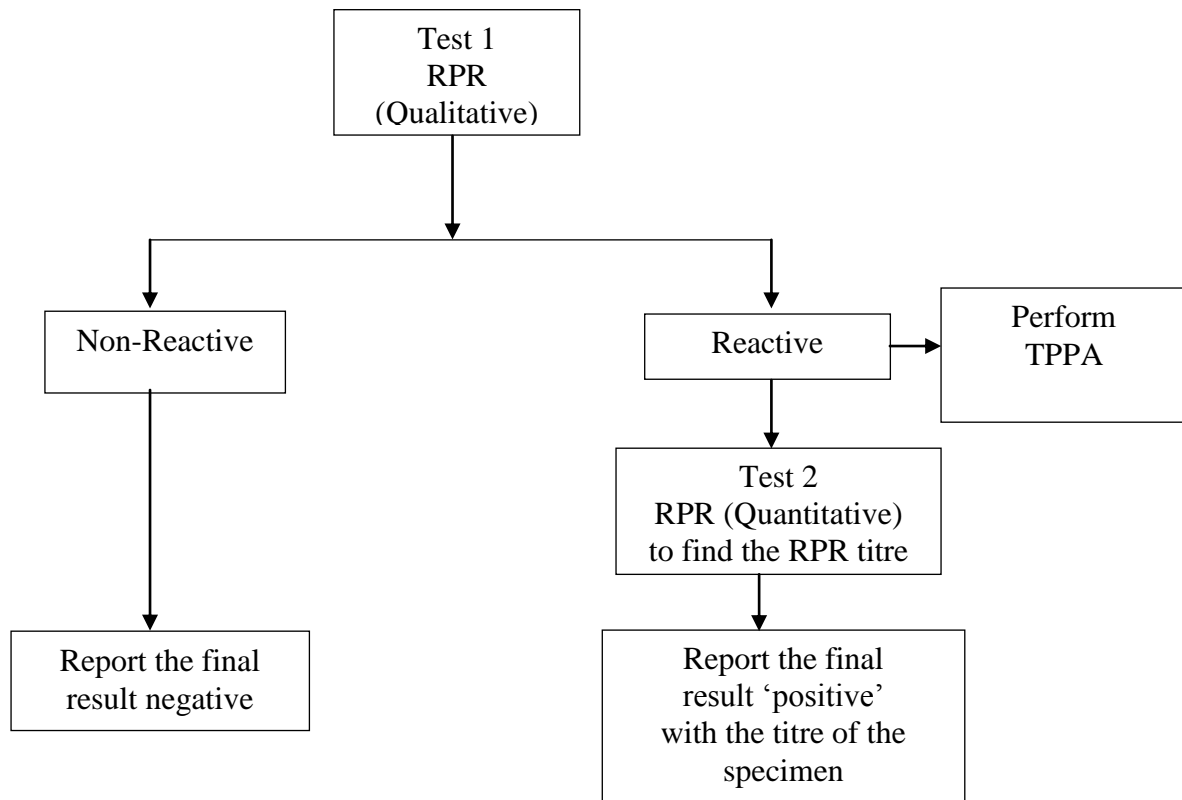
### Interpretation of the Test Results

- All samples negative by first test were reported as negatives.
- All samples positive by one test only subjected to the second test.
- All the positive tests by tiebreaker test were reported positive
- All negative tests by tiebreaker test were reported as negative.

### 2.10.6 Syphilis Testing

Rapid Plasma Reagin (RPR), a blood-screening test was conducted to detect the presence of antibodies for syphilis among Female Injecting Drug Users. A reactive syphilis result denotes that the respondent has been exposed to *T. palladium* at some point in her life. However, this testing may remain reactive for life in the majority of people who have had syphilis, even if they have been treated properly. Therefore, a positive result does not indicate that the respondent currently has untreated syphilis thus it was further confirmed with a non-treponemal test, RPR to assess disease activity. The standard Algorithm followed for Syphilis Testing is shown below:-

*Figure 2 1: Syphilis Testing Strategy II Algorithm*

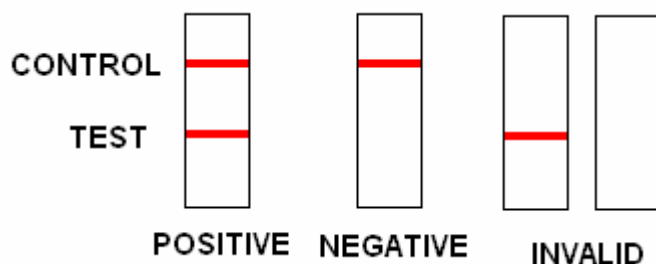


### 2.10.7 Hepatitis B and Hepatitis C Rapid Testing

#### *Hepatitis B*

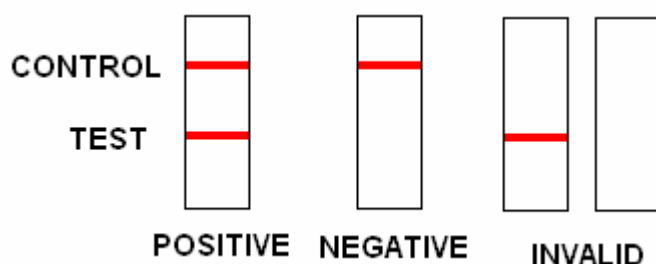
The serum samples were tested for hepatitis B surface antigen (HbsAg) by Rapid test kit HEPACARD Serum/Plasma Kit (J. Mitra and Company, India). The presence of HbsAg in serum was an indication of an active Hepatitis B infection. The presence of the colored line in the test region suggested a positive result, while its absence

denoted a negative result. The absence of the control band indicated that the test was invalid.



### *Hepatitis C*

HCV Tri-dot (J.Mitra and Company, India) test kit was used to diagnosis the infection of Hepatitis C. The two red lines in the control and test region suggested the result was positive. The test having red lines in control region and no lines in test region was considered as negative result. A colored control band in the control region appears at the end of the test procedure regardless of the test result. The absence of the control band indicated that the test was invalid.



## **2.11 External Quality Assurance Scheme (EQAS)**

Serum samples were created for the external quality assurance of the tests. The samples were collected in crayon vials and cold chain was maintained during storage and transportation throughout the survey period. All Positive and randomly selected 10% of the negative samples of HIV, RPR, Hepatitis B and Hepatitis C were handed over to National Public Health Laboratory (NPHL), Kathmandu for external quality control.

## **2.12 Survey Tools**

A quantitative research approach was adopted to collect and analyze the data in this survey. A modified questionnaire was developed using male PWIDs questionnaire used in previous rounds of survey. The questionnaire was then finalized after rigorous edition and discussion from the Tools Finalization workshop conducted with the experts working on various rounds of IBBS Surveys. Interviewer-administered questionnaire data and biological data based on lab tests was collected onto tablet computers and directly loaded into a master database using a wireless internet connection in the field. The software was developed by Public Health and Environment Research Centre (PERC) Nepal. Separate tablets were provided to each of the research assistant (Interviewer) and laboratory technician for collecting the behavioral and biological data.

### **2.13 Pretesting of Survey Tools**

The researchers from SPMER conducted pretesting of the survey tools among Female Injecting Drug Users population in service outlets of Network operators. Altogether, 4 respondents were interviewed using tablet-based questionnaires. The questionnaires were checked for flow, skip checks and language modification and minor grammatical changes were made after the pretesting.

### **2.14 Data Analysis and Management**

The behavioral and biological data collected through the tablets were uploaded to a server after completion of each questionnaire every day. The uploaded data were downloaded by an authorized person of SPMER and were saved in password-protected computers everyday. The inconsistencies identified in the data collection procedures were noted on a daily basis and finally were rechecked and verified in consultation with survey consultant, application and data management team and other experts. These data were further transferred to the Excel sheets and coded. Then, the data were transferred to the SPSS-20 version for the final data analysis. Descriptive statistics such as percentage, mean, median, standard deviation and inferential statistics like chi-square test were used to establish association to infer findings. The associations having p-value less than 0.05 were taken as a significant association.

### **2.15 Monitoring and Supervision**

The team of NCASC, Save the Children US/Global Fund and SPMER conducted the overall monitoring and supervision of the survey. The Team Leader and Research Officer of survey conducted various rounds of participatory internal monitoring and supervision visits to the survey site. The survey team implemented all the feedbacks and suggestions and followed the protocol of the survey throughout the survey process through direct supervision of Survey Coordinator. Team meetings were held every week to plan for the actions and solve any problems encountered at the field-level. The Survey Coordinator in the field reported the SPMER and the Survey team frequently to update the field operations.

### **2.16 Ethical Considerations**

The survey protocol was approved by Nepal Health Research Council (NHRC). The respondents involved in the surveys were properly informed about the nature of the survey. They were informed that their participation was voluntary and were free to refuse to answer any question or to withdraw from the interview at any stage. They were also informed that such withdrawal would not affect the services they receive. The consent describing the objectives of the survey, the nature of survey population, benefits, risks and confidentiality issues were clearly delivered to them in presence of network operators and mobilisers. A specific number ID card was provided to each of the respondents. HIV test results along with post-test counseling were provided to each of them in a confidential manner. A travel allowance of NRs 300, a pack of fruit juice was offered to each of the respondents as incentive. Only the core team of the research had access to the submitted data. The research ethics were strictly followed throughout the survey process.

### **2.17 Pre test and Post test Counseling**

Pre test and Post test counseling was done by the trained counselors of SPMER. The respondents were counseled before undergoing the laboratory test. The major part of pre test counseling session was to prepare the respondents for the blood test and the probable test results. The risky sexual and injecting behaviors and practices of condom use were also discussed in the Pre test counseling. The Post test counseling was done after the confirmation of the test results from the laboratory. The Post test counseling session concentrated on the test results, safe injecting behaviors and treatment, care and support services available. The respondents with positive test results were counseled confidentially. The respondents having test result positive were referred to Sukraraj Tropical Hospital and to other services (public hospital).

## **CHAPTER III: FINDINGS (SOCIO- DEMOGRAPHIC CHARACTERISTICS AND KNOWLEDGE AND USE OF FAMILY PLANNING METHODS)**

### **3.1 Socio-demographic Characteristics**

The survey explored the socio-demographic characteristics of the Female Injecting Drug Users living in Kathmandu Valley. This chapter describes the respondent's age, marital status, age at marriage, gravida, current living situation, educational background, caste/ethnicity and knowledge and use of family planning methods.

#### **3.1.1 Demographic Characteristics**

Table 3.1 represents the demographic characteristics of the Female Injecting Drug Users. Almost three fifths of Female Injecting Drug Users (59%) were youth aged below 25 years. Almost a fifth of them (19%) were between 25-29 years. Their age ranged from 17 to 39 years ( $SD \pm 5.5$  year) with an average age of 24.4 years.

Over two fifths (43%) of them were never married. Majority of the Female Injecting Drug Users (72%) were married at young age of 19 years and below with an average age at marriage 18 years. Among those who were married, four fifths of them (80%) had given birth to a live child. Over three fifths of respondents (62%) were currently living in a rented room and over one- third of them (36%) were living in their own home (Table 3.1).



**Table 3.1 Demographic Characteristics**

	N	%
<b>Age group</b>		
Less than or equal to 19 years	33	20.6
20-24 years	62	38.8
25-29 years	31	19.4
30-34 years	24	15.0
35-39 years	10	6.3
Mean	24.4 years	
Median	23 years	
Range	17-39 years	
SD	5.5 years	
Total	160	100.0
<b>Marital status</b>		
Never Married	69	43.1
Married	69	43.1
Divorced/Permanently separated	17	10.6
Living together	5	3.1
Total	160	100.0
<b>Age at Marriage</b>		
Less than or equal to 19 years	66	72.5
20-24 years	18	19.8
25-29 years	7	7.7
Mean	18 years	
Median	17 years	
Range	11-29 years	
SD	3.8 years	
Total	91	100.0
<b>Given birth to any live child</b>		
Yes	73	80.2
No	18	19.8
Total	91	100.0
<b>Current living situation</b>		
Homeless on the street	3	1.9
Living in own home	57	35.6
Rented room	100	62.5
Total	160	100

**3.1.2 Social Characteristics**

Nearly half (49%) of the Female Injecting Drug Users had completed secondary level of education, one-fourth (26%) had completed fema higher secondary and above level of education while just less than one in ten (9%) were illiterate. Over two thirds of the respondents (68%) belonged to Janajati (Lama/ Gurung/ Magar/ Tamang/ Newar/ Rai/

Limbu / Sherpa) and above one-fourth (27%) of them belonged to Brahmin/ Chhetri ethnic group. Nearly half of them (46%) had been staying in the same place since their birth while over a third (37%) were living in the same place for 1-5 years (Table 3.2).

**Table 3.2: Social Characteristics**

	N	%
<b>Education Level</b>		
Illiterate	14	8.8
Literate with no formal education	4	2.5
Primary	23	14.4
Secondary	78	48.8
Higher secondary and above	41	25.6
<b>Total</b>	<b>160</b>	<b>100</b>
<b>Caste/Ethnicity</b>		
Brahmin/Chettri	44	27.5
Janajati (Lama/Gurung/Magar/Tamang/ Newar/Rai/Limbu/Sherpa)	108	67.6
Dalit (Hill and Terai)	8	5.1
<b>Total</b>	<b>160</b>	<b>100</b>
<b>Duration of continuously staying in the same place</b>		
Since birth	73	45.6
Less than 1 year	13	8.1
1-5 year	59	36.9
More than 5 year	15	9.4
<b>Total</b>	<b>160</b>	<b>100</b>

### **3.2 Knowledge and Use of Family Planning Methods**

Almost all (98%) of the Female Injecting Drug Users had heard about family planning. The most common family planning methods they had heard of were condom (92%), Depo-Provera (65%) and pills (48%). Above one in three (36%) of the Female Injecting Drug Users had ever used family planning methods. Among those who had ever used a family planning method, the most commonly used was condom (52%) and Depo-Provera (21%) (Table 3.3).

**Table 3.3 Knowledge and Use of Family Planning Methods**

	N	%
<b>Ever Heard about Family Planning</b>		
Yes	157	98.1
No	3	1.9
<b>Total</b>	<b>160</b>	<b>100</b>
<b>Methods (Heard)</b>		
Condom	144	91.7
Pills	76	48.4
Depo-Provera	102	65.0
Copper-T	56	35.7
Implant	35	22.3
Emergency Contraceptive Pill (ECP)	54	34.4
<b>Total</b>	<b>157</b>	<b>*</b>
<b>Ever used of Family Planning</b>		
Yes	58	36.3
No	102	63.8
<b>Total</b>	<b>160</b>	<b>100.0</b>
<b>Methods (Used)</b>		
Condom	30	51.7
Pills	4	6.9
Depo-Provera	12	20.7
Copper-T	2	3.4
Implant	4	6.9
Emergency Contraceptive Pill (ECP)	6	10.3
<b>Total</b>	<b>58</b>	<b>100.0</b>

*\*Note: The percentage total may exceed 100 due to multiple responses.*

## **CHAPTER IV: PREVALENCE OF HIV, STI AND ITS ASSOCIATION WITH SELECTED VARIABLES**

### **4.1 HIV/STI, HBV and HCV Prevalence**

It is notable that over a fifth of the Female Injecting Drug Users (22%) had Hepatitis C. The prevalence of HIV was 8.8 percent and Syphilis was 7.5 percent and Hepatitis B was 1.9 percent among the sampled PWIDs (Table 4.1). Among the 14 respondents having HIV 8 were identified before the survey and 6 of the HIV positive were newly recognized during the survey process. The newly positive were linked with the national Program for treatment, care and support.

The most common co-infection among Female Injecting Drug Users was found to be HIV and Hepatitis C (5.6%) co-infection followed by HIV and Syphilis (3%) and Syphilis and HCV co-infection (3%). The co-infection of HIV, syphilis and HCV (2%) and the co-infection of Hepatitis B and Hepatitis C (1%) were also noteworthy. However, no co-infections of all four STIs was found among Female Injecting Drug Users (Table 4.1).

**Table 4.1: HIV and STI Prevalence**

<b>HIV and STI Prevalence</b>	<b>N (160)</b>	<b>%</b>
HIV	14	8.8
Active Syphilis	12	7.5
Syphilis History	1	0.6
HBV	3	1.9
HCV	34	21.9
Co-infection of HIV and Syphilis	5	3.1
Co-infection of HIV and HBV	0	0
Co-infection of HIV and HCV	9	5.6
Co-infection of Syphilis and HBV	0	0
Co-infection of Syphilis and HCV	5	3.1
Co-infection of HBV and HCV	2	1.2
Co-infection of HIV, Syphilis and HCV	3	1.9
Co-infection of HIV, Syphilis and HBV	0	0
Co-infection of HIV, Syphilis, HBV and HCV	0	0

## 4.2 Association between Socio-Demographic Characteristics and HIV Infection

Association between socio-demographic variables and HIV prevalence were measured using chi-square test. Out of 14 Female Injecting Drug Users having HIV, 13 were aged 20 and above (10%). Most of them who had HIV infection were ever married (13%) and illiterate (21%). Two variables (marital status and literacy) had significant association with HIV infection ( $p < 0.05$ ) (Table 4.2).

**Table 4.2: Association between Socio-Demographic Characteristics and HIV Infection**

	N=160	HIV+		p value
		N	%	
<b>Age group</b>				
Below 20 years	33	1	3	P>0.05
20 + Years	127	13	10.2	
<b>Marital status</b>				
Ever married	91	12	13.2	P<0.05
Never married	69	2	2.9	
<b>Literacy</b>				
Illiterate	14	3	21.4	P<0.05
Literate/formal school	146	11	7.5	

## 4.3 Association between Socio-Demographic Characteristics and HCV Infection

All 35 Female Injecting Drug Users who had Hepatitis C were above 20 years. Most of them who had HCV infections were never married (29%) and illiterate (36%). However, only marital status was found to be significantly associated with HCV infection ( $p < 0.05$ ) (Table 4.3).

**Table 4.3: Association between Socio-Demographic Characteristics and HCV Infection**

	N=160	HCV+		p value
		N	%	
<b>Age group</b>				
Below 20 years	33	0	0	
20 +	127	35	27.6	
<b>Marital status</b>				
Ever married	69	9	13.0	p<0.05
Never married	91	26	28.6	
<b>Literacy</b>				
Illiterate	14	5	35.7	p>0.05
Literate	146	30	20.5	

#### 4.4 Association between Drug Injecting Behavior and HIV infection

Among the 14 Female Injecting Drug Users who had HIV, most of them had been injecting drugs for more than 5 years (16%). A significant association between duration of injecting drug use and HIV infection was revealed ( $p < 0.05$ ). The HIV Infection had been found more among Female Injecting Drug Users injecting two or more times a day (22%). However, no significant association was found between frequency of injecting drug in the past week and HIV infection. Similarly, most of the Female Injecting Drug Users who had HIV had history of injecting previously used needle/syringe during the past week (15%) but no significant association was found. The HIV infection among Female Injecting Drug Users who had never used needle/syringe kept in public place during the past week before the survey (9%) was more than those who had ever injected. Nevertheless, the association was not significant (Table 4.4).

**Table 4.4: Association between Drug Injecting Behavior and HIV Infection**

Drug Injecting Behavior	N=160	HIV+		p Value
		N	%	
<b>Duration of Injecting drug use</b>				
Less than 2 year	60	3	5.0	P<0.05
2-5 Years	45	2	4.4	
More than 5 years	55	9	16.4	
<b>Frequency of drugs injection in the past week</b>				
Not injected last week	11	1	9.1	
1-6 times a week	108	4	3.7	
Everyday	5	1	20.0	
2 or more times a day	36	8	22.2	
<b>Injected with a previously used needle/syringe during the past week</b>				
Not injected/Never used unsafe needle/syringe	134	10	7.5	P>0.05
Ever Injected	26	4	15.4	
<b>Injected with a needle/syringe kept in public place during the past week</b>				
Not injected/Never used needle/syringe kept in public	142	13	9.2	p>0.05
Ever Injected	18	1	5.6	

## 4.5 Association between Drug Injecting Behavior and HCV

### Infection

Among the 35 Female Injecting Drug Users who had HCV infection, most of them (47%) had been injecting drugs for more than 5 years. There was a significant association between the duration of injecting drug use and the infection of HCV ( $p < 0.05$ ). Most of the HCV infections (41%) were among the Female Injecting Drug Users who had injected two or more than two times a day in the past week preceding the survey. Similarly, the HCV infection was higher among those having history of injecting previously used needle/syringe in the past week before the survey (27%). However, no significant association was established. Most of the HCV infection (22.5%) was among those who had never injected/not injected with the syringe kept in public place during the past week (Table 4.5).

**Table 4.5: Association between Drug Injecting Behavior and HCV Infection**

	N=160	HCV+		P-value
		N	%	
<b>Duration of Injecting drug use</b>				
Less than 2 year	60	2	3.3	p<0.05
2-5 Years	45	7	15.6	
More than 5 years	55	26	47.3	
<b>Frequency of drugs injection in the past week</b>				
Not Injected	11	1	9.1	
1-6 times a week	108	18	16.7	
Everyday	5	2	40.0	
2 or more times a day	34	14	41.2	
<b>Injected with a previously used needle/syringe during the past week</b>				
Not injected/Never	134	28	20.9	P>0.05
Ever Injected	26	7	26.9	
<b>Injected with a needle/syringe kept in public place during the past week</b>				
Not injected/Never used needle/syringe kept in public	142	32	22.5	P>0.05
Ever Injected	18	3	16.7	

#### 4.6 Relationship between Sexual Behavior and HIV

The relationship between sexual behavior and HIV prevalence was also assessed in the survey. Among the 14 HIV positive Female Injecting Drug Users, 13 had had sex with different partners (10%). The prevalence of HIV infection was comparatively higher (15%) among those who had 2 or more regular sex partners in the past 12 months before the survey. Similarly, the prevalence of HIV infection was also found higher (14%) among the Female Injecting Drug Users who had 2 or more non-regular sex partners in the last 12 months preceding the survey (Table 4.6).

**Table 4.6 Relationship between Sexual Behavior and HIV**

Sex with Different Partners in the last 12 Months	N=160	HIV +	
		N	%
<b>Involved in Sexual intercourse in the last 12 months</b>			
Yes	128	13	10.2
No	16	1	6.3
Never had sexual contact	16	0	0
<b>Number of regular partner in the past 12 months</b>			
None	32	1	3.1
1 partner	108	10	9.3
2 or more partners	20	3	15.0
<b>Number of non-regular partner in the past 12 months</b>			
None	123	10	8.1
1 partner	8	0	0.0
2 or more partners	29	4	13.8

#### 4.7 Relationship between Sexual Behavior and HCV

Among the 35 Female Injecting Drug Users who had HCV, most of them (31) had sex with different partners. The prevalence of HCV infection was comparatively higher (28%) among those who had one regular sex partner in the past 12 months before the survey. Similarly, the prevalence of HCV was higher (25%) among those who had one non-regular sex partner in the past 12 months preceding the survey (Table 4.7).



**Table 4.7 Relationship between Sexual Behavior and HCV**

<b>Sex with Different Partners in the last 12 Months</b>	<b>N=160</b>	<b>HCV +</b>	
		<b>N</b>	<b>%</b>
<b>Involved in Sexual intercourse in the last 12 months</b>			
Yes	128	31	10.2
No	16	4	25.0
Never had sexual contact	16	0	0
<b>Number of regular partner in the past 12 months</b>			
None	32	4	12.5
1 partner	108	30	27.8
2 or more partners	20	1	5.0
<b>Number of non-regular partner in the past 12 months</b>			
None	123	30	24.4
1 partner	8	2	25.0
2 or more partners	29	3	10.3

## CHAPTER V: DRUG USE, NEEDLE SHARING AND TREATMENT

This chapter describes about the drug use, needle sharing behavior, alcohol use and treatment seeking behavior among the Female Injecting Drug Users of Kathmandu Valley. Drug injecting practices and needle sharing behavior increases the risk of HIV, HBV and HCV among this population.

### 5.1 Alcohol Consumption and Oral Drug Use among Female Injecting Drug Users

More than two fifths (46%) of the Female Injecting Drug Users were found to be consuming alcohol containing drink everyday during the last month preceding the survey. Similarly, more than two fifths (42%) of them were taking oral drugs for more than 5 years and one-third (33%) were taking it for 2-5 years (Table 5.1).

**Table 5.1 Alcohol Consumption and Oral Drug Use among Female Injecting Drug Users**

	N	%
<b>Alcohol intake during the past month</b>		
Every day	73	45.6
More than once a week	13	8.1
Less than once a week	59	36.9
Never	15	9.4
Total	160	100
<b>Duration of oral drug use</b>		
Less than 2 year	41	25.6
2-5 yrs	52	32.5
More than 5 years	67	41.9
Total	160	100

Among the oral drugs, the Female Injecting Drug Users most commonly used Nitrosun/ Nitrovate (50%), Brown Sugar/ White Sugar (37%), Calmpose/ Diazepam/ Velium-10 (19%) and Avil/ Algic (17%) (Table 5.2).

**Table 5.2: Types of Orally Used Drugs**

<b>Types of Orally Used Drugs in the Last Week</b>	<b>N</b>	<b>%</b>
Brown Sugar/White sugar	60	37.5
Nitrosun/Nitrovate	80	50
Ganja/Chares	0	0
Phensydyl/Corex	12	7.5
Calmoose/Diazepam/Velium 10	17	18.6
Codeine	4	2.5
Phenergan/Stagon	2	1.2
Cocaine/cracks	0	0
Proxygin/Proxyvon	20	12.5
Effidin	1	0.6
Avil/Algic	28	17.5
Amphetamine/Yava/Ice	1	0.6
<b>Total</b>	<b>160</b>	<b>*</b>

*\*Note: The percentage total may exceed 100 due to multiple responses.*

## 5.2 Drug Injecting Practices of Female Injecting Drug Users

More than one-third (34%) of the Female Injecting Drug Users had been injecting drugs for more than 5 years. Almost two fifths (37%) had been doing so for less than 2 years indicating that a notable portion of injecting users have entered into the injecting practices in recent years. Almost three fifths (59%) of the Female Injecting Drug Users started injecting drugs at a very young age of below 20 years. The average age of injecting drug for the first time was 20 years (Table 5.3).

**Table 5.3 Drug injecting practices**

	<b>N</b>	<b>%</b>
<b>Duration of drug injection</b>		
Less than 2 years	60	37.5
2 – 5 years	45	28.1
More than 5 years	55	34.4
<b>Total</b>	<b>160</b>	<b>100</b>
<b>Age at the time of injecting drug for first time</b>		
Up to 20 years	94	58.75
21+ years	66	41.25
Mean	20	
Median	19	
Range	10-39 years	
Standard deviation (SD)	4.8	
<b>Total</b>	<b>160</b>	<b>100</b>

The Female Injecting Drug Users used various combinations of drugs for injection during the past one week. The most commonly used were Tidegestic/ Noorphine/ Nufine/ Lupegesic (88%), Calmpose/ Diazepam (79%) and Phenargan/ Stagon (73%) (Table 5.4).

**Table 5.4 Types of Drugs injected in the past one week**

<b>Types of Drugs Injected in Past Week</b>	<b>N</b>	<b>%</b>
Tidigestic/Noorphine/Nufine/Lupegesic	141	88.1
Phenergan/Stagon	117	73.1
Brown Sugar/White Sugar	21	13.1
Proxygin/Proxyvon	11	6.9
Calmpose/Diazepam	127	79.4
Effidin	3	1.9
Cocaine/Cracks	4	2.5
<b>Total</b>	<b>160</b>	<b>*</b>

*\*Note: The percentage total may exceed 100 due to multiple responses.*

During the last injection, over two fifths (42%) of the Female Injecting Drug Users used a needle/syringe which they had purchased themselves. Over a quarter of them (29%) had used a new needle/syringe given to them by a friend and almost one-sixth (15%) had obtained a new needle/syringe from a DIC. Over half of the Female Injecting Drug Users (59%) injected once a day and over one-third (36%) of them injected twice a day. One-sixth (16%) of them shared needle/syringe with one or more partners (Table 5.5).

**Table 5.5: Injecting Practice during Last Injection**

<b>Injecting risk behavior</b>	<b>N</b>	<b>%</b>
My friend/relative gave it to me after his use	10	6.3
From DIC	24	15.0
I used a new needle/syringe given by NGO staff/volunteer	9	5.6
I used needle/syringe which I purchased	68	42.5
my husband gave me new syringe	2	1.3
My friend gave new needle/syringe	47	29.4
<b>Total</b>	<b>160</b>	<b>100.0</b>
<b>Frequency of injecting yesterday/last day</b>		
One	94	58.8
Two	58	36.3
Three	8	5.0
Range (1-3)		
<b>Total</b>	<b>160</b>	<b>100.0</b>
<b>Number of people with whom syringe was shared in a group the last time</b>		
None	135	84.4
One or more	25	15.6
<b>Total</b>	<b>160</b>	<b>100.0</b>

Majority of the respondents (81%) reported that they never used a needle/syringe that had been used by others in the past one week. Only 4 percent of them used the needle/syringe used by others every time they injected a drug and one in every ten (10%) did so sometimes. Similarly, large majority of respondents (86%) had never used a needle/syringe that had been kept in public place. More than a tenth (11%) of the Female Injecting Drug Users had used a needle/syringe that had been kept in public place sometimes. (Table 5.6).

**Table 5.6: Injecting Practice in the Past Week**

<b>Used a needle/syringe that had been used by others</b>	<b>N</b>	<b>%</b>
Every times	7	4.4
Almost every-times	3	1.9
Sometimes	16	10
Never	130	81.3
Not injected in the last week	4	2.5
<b>Total</b>	<b>160</b>	<b>100</b>
<b>Used a needle/syringe that had been kept in public place</b>		
Almost every-times	1	0.6
Sometimes	17	10.6
Never	138	86.2
Not injected in the last week	4	2.5
<b>Total</b>	<b>160</b>	<b>100</b>

### **5.3 Needle/Syringe Sharing Behavior of Female Injecting Drug Users**

The needle/syringe sharing behavior of the Female Injecting Drug Users was assessed during the survey. It was found that less than a tenth (9%) shared needle/syringe with their usual sexual partner. On the other hand none of them shared needle/syringe with a sexual partner they did not know. Very few of them (5%) did so with a friend. A negligible percent shared needle/syringe with a drug seller (<1%), and with an unknown person (1%) while almost 3 percent had always injected drugs using a syringe after someone had squirted drugs (Table 5.7).

**Table 5.7: Needles and Syringes Sharing Practice in the Past Week**

	N	%
<b>Share needles and syringes with your usual sexual partner</b>		
Yes	14	9.7
No	129	89.6
No Response	1	0.7
Total	144	100
<b>Share needles and syringes with a sexual partner who you did not know</b>		
Yes	0	0
No	133	92.4
No Response	11	7.6
Total	144	100
<b>Share needles and syringes with a friend</b>		
Yes	8	5
No	152	95
Total	160	100
<b>Share needles and syringes with a drugs seller</b>		
Yes	1	0.6
No	158	98.8
Don't know	1	0.6
Total	160	100
<b>Share needles and syringes with unknown person</b>		
Yes	2	1.3
No	158	98.8
Total	160	100
<b>Inject drugs using a syringe after someone else had squirted drugs</b>		
Every times	4	2.6
Almost every-times	3	1.9
Sometimes	12	7.7
Never	141	88.1
Total	160	100

#### **5.4 Knowledge and Access to New Needles/Syringes**

Majority of the Female Injecting Drug Users (85%) knew how to obtain a new, unused needles/syringe. Among them the common source to obtain a new needle/syringe was a drug store (84%), DIC/NGOs (48%), hospital (42%) and friends (32%) (Table 5.8).

**Table 5.8: Knowledge/Sources of New Syringes**

<b>Obtain new, unused needles and syringes</b>	<b>N</b>	<b>%</b>
Yes	136	85
No	24	15
<b>Total</b>	<b>160</b>	<b>100</b>
<b>Place for obtaining injecting drugs</b>		
Drugstore	114	83.8
Health worker	4	2.9
Hospital	57	41.9
Drug wholesaler/drug agency	4	2.9
Family/relatives	3	2.2
Sexual partner	7	5.1
Friends	43	31.6
Other drugs users	4	2.9
Drugs seller	12	8.8
Needle exchange program	8	5.9
DIC/NGOs	65	47.8
<b>Total</b>	<b>136</b>	<b>*</b>

*\*Note: The percentage total may exceed 100 due to multiple responses.*

## 5.5 Needle Disposal Practice

Over half of the Female Injecting Drug Users (56%) reported throwing needles anywhere after use while only over one-third (37%) of them disposed it safely. It is noteworthy that 4 percent of the Female Injecting Drug Users exchanged the needle with needle exchange program (Table 5.9).

**Table 5.9 Needle disposal practice**

<b>Practice of needle disposal</b>	<b>N</b>	<b>%</b>
Disposed	51	37.5
Gave to friend	1	0.7
Kept/Carry safely for another use	3	2.2
Threw any where	75	55.1
Needle exchange	6	4.4
<b>Total</b>	<b>136</b>	<b>100</b>

## 5.6 Treatment Practice

Over two thirds (69%) of the Female Injecting Drug Users had never received treatment to overcome drug use. Among those who were currently under treatment (6%) and were on treatment in the past (25%), more than half of them (58%) had

received treatment before five months or above and a quarter (26%) had received treatment before two to five months (Table 5.10).

**Table 5.10: Treatment Seeking Behavior for Drug Use**

<b>Treatment (or help) received for drug use</b>	<b>N</b>	<b>%</b>
Currently under treatment	10	6.2
Was in treatment but not now	40	25
Have never received treatment	110	68.7
<b>Total</b>	<b>160</b>	<b>100</b>
<b>Last treatment received (months)</b>		
One Months	8	16.0
Two to Five Months	13	26.0
Five + Months	29	58.0
<b>Total</b>	<b>50</b>	<b>100</b>



## **CHAPTER –VI: SEXUAL BEHAVIOR AND CONDOM USE**

This chapter explains the risky sexual behaviors, types of sex partners and knowledge and use of condom among the Female Injecting Drug Users.

### **6.1 Sexual Behavior of Female Injecting Drug Users**

Nearly one third of the Female Injecting Drug Users (30%) had their first sex at the age 15 years and below while around two thirds (62%) had done so above the age of 15 years. Majority of the Female Injecting Drug Users (89%) had had sexual intercourse within past 12 months. Among them over two thirds (68%) had a single sex partner and nearly one third (32%) of them had multiple sex partners. Among them over four fifths (84%) had a regular male partner.

Among the Female Injecting Drug Users who had had sex with a regular male partner in the past 12 months, three out of five (61%) had male partners who also injected drugs. A quarter of the Female Injecting Drug Users (25%) had had sex with a casual male partner (6% had a single whereas 19% had two or more casual sex partner) in the past 12 months and among them over a quarter (28%) of the casual male partner also injected drugs (Table 6.1).

**Table 6.1: Sexual Behavior**

<b>Age at first sex</b>	<b>N</b>	<b>%</b>
Never had sex	16	10.0
15 and below	47	29.4
15 above	97	60.6
<b>Total</b>	<b>160</b>	<b>100</b>
<b>Sexual intercourse in the last 12 month</b>		
Yes	128	88.9
No	16	11.1
<b>Total</b>	<b>144</b>	<b>100</b>
<b>Number of total sex partner in the last 12 months</b>		
Single	87	68.0
Two to Five	29	22.7
Five above	12	9.4
<b>Total</b>	<b>128</b>	<b>100</b>
<b>Number of regular male partner</b>		
Single	108	84.4
Two and more	20	15.6
<b>Total</b>	<b>128</b>	<b>100</b>
<b>Male regular partner also inject drugs</b>		
Yes	78	60.9
No	50	39.1
<b>Total</b>	<b>128</b>	<b>100</b>
<b>Number of Casual male partner</b>		
Don't have casual male sex partner	108	75
Single	8	5.6
Two and more	28	19.4
<b>Total</b>	<b>144</b>	<b>100</b>
<b>Male causal partner also inject drugs</b>		
Yes	10	27.8
No	10	27.8
Don't know	16	44.4
<b>Total</b>	<b>36</b>	<b>100</b>

Almost one-fifth (17%) of Female Injecting Drug Users had had sexual intercourse with men in exchange of money or drugs in the past 12 months. Among them, nearly two-thirds (63%) had two or more male partners.

**Table 6.2: Sexual Behavior in Exchange of Money or Drugs for Sex in the last 12 months**

	N	%
<b>Sexual intercourse with men in exchange of money or drugs in last 12 months</b>		
Yes	24	16.7
No	120	83.3
Total	144	100
<b>Number of partners who paid for sex</b>		
Single	9	37.5
Two and more	15	62.5
Total	24	100

## **6.2 Knowledge of Condom and its accessibility**

Knowledge of the respondents who had ever had sexual experience was examined about availability of condom and place or person from where condom can be obtained. Almost all knew about the place or person from whom to obtain a condom. The most common source for them to obtain a condom was a pharmacy (92%), hospital (53%), Clinic (46%) and DIC (34%). Over two thirds of the respondents (68%) reported that they did not get free condoms from any organisation in the last 12 months. Majority of the respondents (88%) were not found to be usually carrying condom along with them (Table 6.3).

**Table 6.3: Knowledge of Condom and its accessibility**

	N	%
<b>Knowledge about place or person for obtain condoms</b>		
Yes	143	99.3
No	1	0.7
Total	144	100
<b>Place or person for obtain condoms</b>		
Shop	13	9.1
Pharmacy	132	92.3
Clinic	66	46.2
Hospital	78	54.5
Family Planning Center	2	1.4
Bar/Guest house/Hotel	4	2.8
Health Worker	10	7.0
Peer /Outreach Educator	31	21.7
Friend	23	16.1
Paan Pasal	15	10.5
DIC	49	34.3
PHC	2	1.4
Total	143	*
<b>Organization give you condom in the last 12 months</b>		
Yes, free of cost	45	31.5
No	98	68.5
Total	143	100
<b>Usually carry condom with you</b>		
Yes	17	11.8
No	126	88.1
Total	143	100

*\*The percentages total may exceed 100 because of multiple responses.*

### 6.3 Use of Condom

Almost three fourths (74%) of the Female Injecting Drug Users had ever used a condom. Only about a third (32%) of the Female Injecting Drug Users had used condom during the last anal/vaginal/oral sex with a male partner. It is found that almost three in five (58%) had used condom during the last anal/vaginal/oral sex with a male partner in exchange for money or drugs (Table 6.2).

**Table 6.4: Use of condom**

	<b>N</b>	<b>%</b>
<b>Ever used a condom</b>		
Yes	106	73.6
No	38	26.4
<b>Total</b>	<b>144</b>	<b>100</b>
<b>Use of condom at the last anal/vaginal/oral sex with a male sex partner</b>		
Yes	46	31.9
No	95	66
Don't know	3	2.1
<b>Total</b>	<b>144</b>	<b>100</b>
<b>Use of condom at the last anal/vaginal/oral sex with a male partner in exchange for money or drugs</b>		
Yes	14	58.3
No	9	37.5
Don't know	1	4.2
<b>Total</b>	<b>24</b>	<b>100</b>

## **CHAPTER VII: KNOWLEDGE OF STIs, HIV/AIDS AND HCV**

This chapter deals with the knowledge of STIs, HIV/AIDS and Hepatitis C among the Female Injecting Drug Users. It also describes their attitude and perceptions towards HIV/AIDS, knowledge about how HIV/AIDS is transmitted and regarding HIV testing facilities.

### **7.1 Knowledge about STIs**

An overwhelming majority (95%) of the Female Injecting Drug Users had heard of STIs. The Female Injecting Drug Users who had heard of STIs were further assessed about their knowledge of STI symptoms. The common symptoms they knew about were foul smelling vaginal discharge (74%), itching around vaginal area (72%), genital sore/ulcer (62%), lower abdominal pain (51%) and burning pain during urination (31%).

Over one-fifth (23%) of them had genital discharge/burning urination and 38 percent of them had genital sore/ulcer during the last 12 months. Among those who had experienced genital discharge/burning urination (n=36) during the last 12 months, 19 percent were currently experiencing the symptoms during the time of survey. Similarly, among those who had experienced genital sore/ulcer (n=16) during the last 12 months, 37 percent of them were experiencing such symptoms during the time of survey. Out of total respondents forty-three respondents had either genital discharge/burning urination or genital ulcer/sore blister in the last 12 months. Among these respondents almost half of them (49%) didn't seek treatment. More than a quarter of the Female Injecting Drug Users (28%) visited the hospital for the STI treatment.

## 7.1 Knowledge about STIs and Treatment Behavior

	N	%
<b>Ever heard of diseases that can be transmitted through sexual intercourse</b>		
Yes	152	95.0
No	8	5.0
Total	160	100
<b>Knowledge of STI symptoms</b>		
Lower Abdominal pain	77	50.7
Genital Discharge	21	13.8
Foul smelling	112	73.7
Burning pain on urination	47	30.9
Genital ulcers/sore	94	61.8
Swelling in groin area	13	8.6
Itching	110	72.4
Don't know	27	17.8
Total	152	*
<b>Genital discharge/burning urination during the last 12 months</b>		
Yes	36	22.5
No	124	77.5
Total	160	100
<b>Currently have genital discharge/burning urination problem</b>		
Yes	7	19.4
No	29	80.6
Total	36	100
<b>Have genital ulcer/sore blister during the last 12 months</b>		
Yes	16	10.0
No	144	90.0
Total	160	100
<b>Currently have genital ulcer/sore blister</b>		
Yes	6	37.5
No	10	62.5
Total	16	100
<b>Place for treatment</b>		
Did not seek treatment	21	48.8
With private doctor	5	11.6
In hospital	12	27.9
DIC	5	11.6
Total	43	100

*\*The percentages may exceed to 100 because of multiple responses.*

## 7.2 Knowledge about HIV/AIDS

Almost all the Female Injecting Drug Users (99%) had heard of HIV/AIDS. A half of them (51%) knew someone with HIV or who had died of AIDS. Nearly two-thirds (63%) of them had a close friend and nearly one third (30%) had a close relative who was infected or died of HIV/AIDSs (Table 7.2).

**Table 7.2: Awareness of HIV/AIDS**

<b>Ever heard of HIV/AIDS</b>	<b>N</b>	<b>%</b>
Yes	158	98.8
No	2	1.2
<b>Total</b>	<b>160</b>	<b>100</b>
<b>Know anyone who is infected with HIV or who has died of AIDS</b>		
Yes	81	50.6
No	79	49.4
<b>Total</b>	<b>160</b>	<b>100</b>
<b>Close relative/friend who is infected with HIV or died of AIDS</b>		
Yes, a close relative	24	29.6
Yes, a close friend	51	63.0
No	6	7.4
<b>Total</b>	<b>81</b>	<b>100</b>

The Female Injecting Drug Users were asked many questions related to transmission of HIV to assess their comprehensive knowledge about the major ways of avoiding HIV/AIDSs. Two thirds (67%) of them knew that “People can protect themselves from HIV by using condom during each sexual contact (**C**). A half of them (50%) knew that they can prevent HIV by being faithful to a single partner (**B**). Similarly, over two fifths of them (44%) knew abstinence from sexual contact as a means to avoid themselves from HIV/AIDSs (**A**). Overall, only a fifth of the respondents (21%) correctly identified all three **A**, **B** and **C** as HIV preventive measures.

The Female Injecting Drug Users were also assessed to know their perception about HIV transmission. A large majority (93%) of them knew “Sharing a meal with an HIV infected person does not transmit HIV virus”. Similarly, another majority (91%) knew “A healthy-looking person could also be infected with HIV (**D**)”. Over two thirds of the respondents (65%) knew “A person cannot get the HIV virus from mosquito bite (**E**)”. Overall, just above a quarter of the respondents (27%) were aware of all the five major indicators i.e., **BCDEF** (Table 7.3).



**Table 7.3: Knowledge about Major Ways of Avoiding HIV/AIDS**

<b>Knowledge of Six Major Indicators on HIV/AIDS</b>	<b>N</b>	<b>%</b>
<b>HIV transmission can be avoided through</b>		
<b>A</b> Abstinence from sexual contact	70	43.8
<b>B</b> Being faithful to one partner	80	50.0
<b>C</b> Condom use during each sexual contact	107	66.9
<b>Knowledge of ABC</b>	33	20.6
<b>Perception regarding HIV transmission</b>		
<b>D</b> A healthy-looking person can be infected with HIV	145	90.6
<b>E</b> A person cannot get the HIV virus from mosquito bite	104	65.0
<b>F</b> Sharing a meal with an HIV infected person does not transmit HIV virus	148	92.5
<b>Knowledge of BCDEF</b>	43	26.9

*\*The percentages may exceed to 100 because of multiple responses*

Some questions were asked to assess the knowledge of the Female Injecting Drug Users on the ways of transmission of HIV/AIDS (Table 7.4). An overwhelming majority (98%) knew that “HIV could be transmitted through blood transfusion from an infected person”. Similarly another majority (96%) knew that “A person could get an HIV by reusing the needle used by others” followed by “A person cannot get HIV by holding hand of HIV infected person” (96%). Over two thirds of them (67%) knew that “A pregnant woman infected with HIV/AIDS can transmit the virus to her unborn child”. Half of them (50%) knew that “They could protect themselves from HIV/AIDS by switching to non-injecting drugs”. Over two fifths of them (44%) knew that “A woman with HIV/AIDS could transmit the virus to her new-born child through breastfeeding” (Table 7.4).

**Table 7.4: Knowledge on Ways of HIV/AIDS Transmission**

<b>Statements Related to HIV/AIDS</b>	<b>N</b>	<b>%</b>
A person can get HIV by using previously used needle by others	153	95.6
An IDU can protect themselves from HIV/AIDS by switching to non-injecting drugs	81	50.6
A woman with HIV/AIDS can transmit the virus to her new-born child through breastfeeding	71	44.4
Blood transfusion from an infected person to the other transmit HIV	157	98.1
A person cannot get HIV by holding an HIV infected person’s hand	153	95.6
A pregnant woman infected with HIV/AIDS can transmit the virus to her unborn child	107	66.9
Total	160	*

### 7.3 Knowledge about HIV Testing Facilities

The knowledge of the Female Injecting Drug Users about the HIV testing facility was assessed in the survey. Two thirds of the respondents (66%) knew that a confidential HIV testing facility was available in their community. A large majority of them (93%) knew about the place where HIV testing could be done. Over two thirds of the respondents (68%) had ever tested for HIV. Out of them who had ever tested for HIV, almost nine out of ten (89%) of them had done it voluntarily. Among the Female Injecting Drug Users who had ever had an HIV test, two thirds (67%) of them had done their most recent HIV test within past 12 months. and among them 96 percent had received the report of last test result. Among those who had received the last test result almost 8 percent (n=8) of them were HIV positive. Three out of eight HIV positive respondents had visited to HTC for HIV care. Altogether, 5 respondents had not visited to the HTC for HIV care. They were again asked about the reasons for not going the HTC for HIV care. The reasons were frustration, afraid of disclosing of status and one of them shared that she has a plan to go in future (Table 7.5).

**Table 7.5: Knowledge about HIV Testing Facilities and History of HIV Test**

<b>Knowledge about confidential HIV test in the community</b>	N	%
Yes	106	66.2
No	40	25.0
Don't know	14	8.8
Total	160	100
<b>Knowledge of place where HIV test can be done</b>		
Yes	148	92.5
No	12	7.5
Total	160	100
<b>Ever had an HIV test</b>		
Yes	109	68.1
No	51	31.9
Total	160	100
<b>Done HIV test Voluntarily</b>		
Yes	97	89.0
No	12	11.0
Total	109	100
<b>Time of most recent HIV test</b>		
Within past 12 months	73	67.0
Between 13 - 24 months	16	14.7
Between 25 - 48 months	12	11.0
More than 48 months	7	6.4
Don't know	1	0.9
Total	109	100

<b>Respondent who had received the result of last HIV test</b>		
Yes	105	96.3
No	3	2.8
No Response	1	0.9
Total	109	100
<b>Result of the last HIV test</b>		
Yes (Positive)	8	7.6
No (Negative)	97	92.4
Total	105	100
<b>Visit to HTC for HIV care once knowing the HIV positive status</b>		
Yes	3	37.5
No	5	62.5
Total	8	100
<b>Reason for not visiting HTC for HIV care even after knowing the HIV positive status</b>		
Others might know	1	20.0
Frustration	1	20.0
Not yet visited but planning to visit in the near future	1	20.0
Don't know	2	40.0
Total	5	100

#### **7.4 Knowledge about Hepatitis C**

Majority of the Female Injecting Drug Users (79%) had ever heard of HCV infection. Among those who ever heard of Hepatitis C infection, nearly three fourths (71%) knew Hepatitis C could be transmitted through sex. Similarly, over three fifths (63%) of them knew that condoms could protect against Hepatitis C. Almost all (97%) knew that sharing needles could transmit Hepatitis C. Another majority (84%) knew that Hepatitis C could be transmitted through tattooing and three fourths (76%) of them were aware of availability of a medical treatment for hepatitis C. Similarly, three fourths (76%) of the Female Injecting Drug Users knew that even people without HIV could be infected from Hepatitis C and almost half (48%) of them knew that herbal remedies cannot cure of HCV infection (Table 7.6).

**Table 7.6 Knowledge about Hepatitis C**

<b>Ever Heard About Hepatitis C</b>	<b>N</b>	<b>%</b>
Yes	126	78.8
No	34	21.3
<b>Total</b>	<b>160</b>	<b>100</b>
<b>Hepatitis C can be transmitted through sex</b>		
Yes	89	70.6
No	11	8.7
Don't know	26	20.6
<b>Total</b>	<b>126</b>	<b>100</b>
<b>Condoms can protect against Hepatitis C</b>		
Yes	79	62.7
No	25	19.8
Don't know	22	17.5
<b>Total</b>	<b>126</b>	<b>100</b>
<b>Hepatitis C can only occur if you have HIV</b>		
Yes	14	11.1
No	96	76.2
Don't know	16	12.7
<b>Total</b>	<b>126</b>	<b>100</b>
<b>Hepatitis C can be transmitted by sharing needles</b>		
Yes	122	96.8
No	0	0
Don't know	4	3.2
<b>Total</b>	<b>126</b>	<b>100</b>
<b>Hepatitis C can be transmitted through tattooing</b>		
Yes	106	84.1
No	8	6.3
Don't know	12	9.5
<b>Total</b>	<b>126</b>	<b>100</b>
<b>Is there a medical treatment for Hepatitis C</b>		
Yes	96	76.2
No	4	3.2
Don't know	26	20.6
<b>Total</b>	<b>126</b>	<b>100</b>
<b>Herbal remedies can cure Hepatitis C</b>		
Yes	7	5.6
No	60	47.6
Don't know	59	46.8
<b>Total</b>	<b>126</b>	<b>100.0</b>

## CHAPTER VIII: EXPOSURE TO STI, HIV AND AIDS PROGRAMS

This chapter deals with exposures of Female Injecting Drug Users to various awareness, prevention, support, treatment and care programs related to STIs, HIV and AIDS targeted to them.

### 8.1 Peer/Outreach Education

Over three fourths of the Female Injecting Drug Users (78%) had met PE/OE in the last 12 months before the survey. During the meeting they performed various activities. (Table 8.1). Majority of them (73%) had discussion on safe injecting behavior and more than three fifths (62%) had discussion on how HIV/AIDS is/isn't transmitted. Similarly, almost a third (32%) had discussed about OST during their interaction with OE/PE. Less than a half of the respondents (45%) had met the OE/PE for 12 or more times in the past year (Table 8.1).

**Table 8.1 Meeting with Peer Educators/Outreach Educators in the Past Year**

	N	%
<b>Met/discussed/interacted with PE or OE in the last 12 months</b>		
Yes	124	77.5
No	36	22.5
<b>Total</b>	<b>160</b>	<b>100</b>
<b>Activities performed while with PE/OE*</b>		
Discussion on how HIV/AIDS is/isn't transmitted	77	62.1
Discussion on how STI is/isn't transmitted	52	41.9
Discussion on safe injecting behavior	90	72.6
Regular/non-regular use of condom	39	31.5
Demonstration on using condom correctly	31	25.0
OST	40	32.3
Suggest to leave	8	6.5
Discussion about syringe exchange program	6	4.8
<b>Total</b>	<b>124</b>	<b>*</b>
<b>Frequency of meeting with PE or OE</b>		
Once	3	2.4
2 - 3 times	22	17.7
4 - 6 times	24	19.4
7 - 12 times	19	15.3
12 or more times	56	45.2
<b>Total</b>	<b>124</b>	<b>100</b>

*\*Note: The percentage total may exceed to 100 due to multiple responses.*

## 8.2 Drop-in-Centers

Among 160 Female Injecting Drug Users, nearly three fourths (73%) had visited Drop-in Centers in the last 12 months before the survey. An overwhelming majority of the respondents (80%) visited the DIC to learn about safe injecting behavior. Other common activities performed during DIC visits were discussion on HIV transmission (67%), collection of new syringes (66%), learning correct ways of using condom (37%) and for collecting condoms. Almost half of the respondents visited DICs 12 or more than 12 times in the last 12 months before the survey (Table 8.2).

**Table 8.2: DIC Visiting Practices in the Past Year**

	N	%
<b>Visited a DIC in the last 12 months</b>		
Yes	116	72.5
No	44	27.5
Total	160	100
<b>Participated activities at DIC*</b>		
Went to collect condoms.	19	16.4
Went to learn the correct way of using condom	43	37.1
Went to learn about the safe injecting behavior	93	80.2
Went to watch film on HIV/AIDS	3	2.6
Participated in discussion on HIV transmission	78	67.2
Went to have new syringe	77	66.4
Total	116	*
<b>Frequency of visits to the DICs</b>		
Once	7	6.0
2 - 3 times	15	12.9
4 - 6 times	23	19.8
7 - 12 times	15	12.9
12 or more times	56	48.3
Total	116	100

*\*Note: The percentage total may exceed due to multiple responses.*

### 8.3 STI Clinics

It is notable that a large majority of the Female Injecting Drug Users (92%) had never visited STI Clinics in the past 12 months. Among those who had visited the STI Clinics (8%), the major reason for the visit was to get a blood test for STI (70%) and physical examination for STI (62%). Over half of them (54%) had visited the STI Clinic only once whereas nearly a third (31%) had visited the STI Clinics 2-3 times in the past 12 months before the survey (Table 8.3).

**Table 8.3: STI Clinic Visiting Practices in the Past Year**

	N	%
<b>Visited any STI clinic in the last 12 months</b>		
Yes	13	8.1
No	147	91.9
Total	160	100
<b>Participated activities at STI clinic</b>		
Blood tested for STI	9	69.2
Physical examination conducted for STI identification	8	61.5
Discussion on how STI is/isn't transmitted	5	38.5
Regular/non-regular use of Condom	2	15.4
Took a friend with me	1	7.7
Total	13	*
<b>Frequency of visits to STI clinics</b>		
Once	7	53.8
2 - 3 times	4	30.8
4 - 6 times	2	15.4
Total	13	100

*\*Note: The percentage total may exceed due to multiple responses.*

### 8.4 HTC Centers

Almost one-fifth (19%) of the Female Injecting Drug Users had visited the HTC Centers over the past 12 months. They reported to have participated in various activities during their visit to HTC. Nearly three fourths (73%) received post HIV/AIDS test counseling. Over half of them (57%) gave their blood sample for HIV/AIDS test. Half of the respondents (50%) had visited the HTC to receive their HIV/AIDS test result. Similarly, over two fifths (43%) of them had received pre-HIV/AIDS test counseling from the HTC center. Half (50%) of the respondents had visited HTC once and nearly one third (30) had visited HTC 2 to 3 times in the last 12 months preceding the survey (Table 8.4).

**Table 8.4: HTC Visiting Practices in the Past Year**

<b>HTC Visiting Practices</b>	<b>N</b>	<b>%</b>
<b>Visited HTC center in the last 12 months</b>		
Yes	30	18.8
No	130	81.3
<b>Total</b>	<b>160</b>	<b>100.0</b>
<b>Participated activities at HTC*</b>		
Received pre-HIV/AIDS test counseling	13	43.3
Blood sample taken for HIV/AIDS test	17	56.7
Received post HIV/AIDS test counseling	22	73.3
Received information on safe injecting behavior	6	20.0
Received HIV/AIDS test result	15	50.0
<b>Total</b>	<b>30</b>	<b>*</b>
<b>Frequency of visits to the HTC</b>		
Once	15	50.0
2 - 3 times	9	30.0
4 - 6 times	4	13.3
7 or more times	2	6.7
<b>Total</b>	<b>30</b>	<b>100</b>

*\*Note: The percentage total may exceed due to multiple responses*

## **8.5 Participation in Opioid Substitution therapy (OST)**

One fourth of the Female Injecting Drug Users (25%) had ever been enrolled into Opioid Substitution Therapy. Among them nearly a half (45%) had received OST within the past 12 months. Majority of the respondents who had received OST (72%) had received Methadone and 28 percent of them had received Buprenorphine (Table 8.5).

**Table 8.5 Enrolled for Opioid Substitution Therapy (OST) Service**

<b>Ever enrolled into any Opioid Substitution Therapy (OST)</b>	<b>N</b>	<b>%</b>
Yes	40	25.0
No	112	70.0
Don't know	8	5.0
<b>Total</b>	<b>160</b>	<b>100</b>
<b>Received any Opioid substitution therapy (OST) in the past 12 months</b>		
Yes	18	45.0
No	22	55.0
<b>Total</b>	<b>40</b>	<b>100</b>
<b>Type of OST service received</b>		
Methadone	13	72.2
Buprenorphine	5	27.8
<b>Total</b>	<b>18</b>	<b>100</b>



# CHAPTER IX: CONCLUSIONS AND RECOMMENDATIONS

## 9.1 Conclusions

The survey had covered a total of 160 Female Injecting Drug Users aged 16 years and above living in the Kathmandu Valley (Kathmandu, Lalitpur and Bhaktapur districts). The females who had been injecting drugs for at least three months prior to the date of the survey had been enrolled in the survey randomly using Network sampling method.

- Nearly two thirds of the Female Injecting Drug Users had been injecting drugs for 2 or more than 2 years.
- More than half of the respondents were youth aged below 25 years of age with mean age of 24.4 years and median age of 23 years.
- Around two fifths of the Female Injecting Drug Users were married and majority of them had married at before or at the age of 19 years.
- About 60 percent of them had started injecting drugs already before their 21<sup>st</sup> birthday. Overall 29 percent of Female Injecting Drug Users had had their first sex at the age of 15 and below.
- Nearly, 9 percent of Female Injecting Drug Users were HIV positive and 22 percent were infected with Hepatitis C. However, 6 out of 14 were newly found HIV positive during the survey process. Similarly, the prevalence of active syphilis and Hepatitis B was 7.5 percent and about 2 percent respectively. The co-infection of HIV and Hepatitis C was 5.6 percent.
- The increasing duration of Injecting drug use was significantly associated with Hepatitis C and HIV Infection.
- Around 6 percent of Female Injecting Drug Users had used previously used needles in their last injection. It is notable that 4.4 percent of PWIDs use needle/syringes that had been already used by others.
- Nearly one third of the Female Injecting Drug Users had multiple sex partners and 19 percent of them had sexual intercourse with men in exchange of money or drugs in the last 12 months.
- Almost half of the PWIDs consumed drinks containing alcohol everyday in the last month prior to the survey.
- An overwhelming majority (99%) of Female Injecting Drug Users had heard about HIV/AIDs and similar percent of them had heard about STIs. However, comprehensive knowledge of HIV was comparatively lower among PWIDs.
- Seventy six percent of the Female Injecting Drug Users had met or discussed with OE/PE in the past 12 months whereas 72 percent of them visited DIC in same period before the survey.
- Twenty five percent of them had ever enrolled into any Opioid Substitution Therapy and 45 percent of them had received OST in the past 12 months.

## 9.2 Recommendations

On the basis of findings, following programs and activities are recommended:

- Although awareness of HIV was almost cent percent among the Female Injecting Drug Users, comprehensive knowledge on HIV was found very low. Only a fifth of the respondents (21%) correctly identified all three **A, B** and **C** as HIV preventive measures whereas just above a quarter nearly of the respondents (27%) were aware of all the five major indicators i.e., **BCDEF**. *Therefore, misconceptions of the target population on mode of transmission of HIV need to be addressed. Mass-medias and role of GOs/NGOs could play an important role to spread the correct knowledge of HIV among them.*
- Nearly a third of the Female Injecting Drug Users (30%) had their first sex at very young age of 15 years and below. Similarly, almost three-fifths of the Female Injecting Drug Users (59%) had started injecting drugs at very young age of below 20 years. *Therefore, specific program activities that target adolescents and youths should be designed to impart knowledge on sex education, drug prevention, HIV/AIDS awareness through Behaviour Change Communication (BCC) interventions.*
- Taking consideration of elevated prevalence of Hepatitis C (21.9%), Syphilis (7.5%) and HIV (8.8%) among the Female Injecting Drug Users, *an immediate attention should be given to start various programs targeting Female Injecting Drug Users in the Kathmandu Valley.*
- Considerable proportions of Female Injecting Drugs Users are at risk of HIV as they have used needles that were already used by their friends (6.3%). Likewise, the practice of sharing syringe with the usual sexual partner in the past week was also prevalent among the Female Injecting Drugs Users (9%). Similarly, the practice of sharing needle during the last injection was prevalent among 16 percent of the respondents. *Harm reduction programs including risk of needle sharing behaviour and advocacy on using new syringes should be launched.*
- As notable percent (60.9%, n=128) of female injecting drug user's male regular partner also inject drugs, *the programme of harm reduction and safer sexual behaviours targeting both the partners should be started.*
- *During the survey process, the team found that most of the female injecting drug users highly depend on male injecting users for drugs and interlinked with each other. Thus, IBBS of both male and female at a time is recommended, if possible.*

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**ANNEX 1:  
Integrated Biological and Behavioral Surveillance Survey  
among Female Injecting Drug Users (FIDU) in Kathmandu  
Valley**

**Questionnaire**

Namaste! My name is ....., I am here from SPMER to collect data for a research survey. This survey is being conducted by National Centre for AIDS and STD Control (NCASC), Ministry of Health and Population. During this interview, I will ask you some personal questions that will be about sexual behavior, use and promotion of condoms, HIV/STI/HCV; and use of drugs and needle/syringes. You may feel uncomfortable to answer some questions relating to your personal behavior, but it is important that you provide correct information. We will also take about 5-7 ml blood sample for testing HIV, syphilis infection, Hepatitis B and Hepatitis C. If it is determined that you have any STI symptoms, we will provide treatment free of charge. We will treat for syphilis on the basis of RPR test on the same day of interview. The information given by you will be strictly treated as confidential. Nobody will know whatever we talk about because your name will not be mentioned on this form and collected samples. All the mentioned information will be used only for the survey purpose. This survey will take about an hour.

It depends on your wish to participate in this survey or not. You do not have to answer those questions that you do not want to answer, and you may end this interview at any time you want to. But I hope you will participate in this survey and make it a success by providing correct answers to all the questions.

Would you be willing to participate?

1. Yes
2. No

Signature of the interviewer: \_\_\_\_\_

Date: \_\_\_\_\_/\_\_\_\_\_/

\_\_\_\_\_/2073

**Operational definition of  
FIDU:**

“Current female drug injectors aged 16 years or above who had been injecting drugs for non-medical purposes for at least three months prior to the date of the survey”

Interviewer Name: \_\_\_\_\_

Code Interviewer: \_\_\_\_\_

Date Interview: \_\_\_\_/\_\_\_\_/ 2073

Checked by the supervisor: Signature: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/ 2073

001. Has someone interviewed you from ..... with a questionnaire in last few weeks?

1. Yes
2. No (continue interview)



When?

\_\_\_\_\_ Days ago (make sure that it was interviewed by SPMER and close the interview)

002. Respondent's ID #:

002.1 How long have you been injecting drugs?

Years  Months

(NOTE: AFORMENTIONED QUESTIONS ARE THE SCREENING QUESTIONS. IF THE RESPONSE IS LESS THAN THREE MONTHS, STOP INTERVIEW BECAUSE THIS PERSON IS NOT ELIGIBLE FOR INCLUSION IN THE SAMPLE)

003. Interview Location  
(to be filled by interviewer)

003.1 District: \_\_\_\_\_

003.2 VDC/Municipality: \_\_\_\_\_

### 1.0 Respondent Information

Q.N.	Questions	Coding Categories	Skip to
101	Where are you living now?  (Write current place of residence)	003.1 District: _____ 003.2 VDC/Municipality : _____	
101.1	How long have you been living continuously at the same address?	Month ..... <input type="text"/> <input type="text"/> <input type="text"/> Always (since birth) ..... 0 Others (Specify).....96	
102	How old are you?  (write the completed years)	Age ..... <input type="text"/> <input type="text"/>	
103	What is your educational status?  (Circle '0' if illiterate, '19' for the literate without attending the school, and write exact number of the passed grade)	Illiterate..... 0 Literate without formal education ..... 19 Literate Grade ..... <input type="text"/> <input type="text"/> (write the completed grade)	
104	What is your caste? (Specify Caste)	Caste _____ Code No..... <input type="text"/> <input type="text"/>	
105	What is your current marital status?	Never married..... 1 → 106 Married .....2 Divorced/Permanently separated ..... 3 Widow.....4 Living together.....5 Others.....96	
105.1	How old were you when you first got married?	Age ..... <input type="text"/> <input type="text"/> (write the completed years)	
105.2	Have you ever given birth to any live child?	Yes.....1 No.....2 → 105.4	
105.3	If yes, how many live children have you given birth to?	Son..... <input type="text"/> <input type="text"/> Daughter..... <input type="text"/> <input type="text"/>	
105.4	Have you ever terminated any of your pregnancy or have you ever gone through any miscarriage?	Terminated pregnancy.....1 Experienced miscarriage.....2	

106	Which of the following best describes your current living situation?  (Select only one option)	Homeless on the street.....1 Living in own home.....2 Living in a residential hotel.....3 Rented apartment.....4 Rented room.....5 Other(specify) .....96	
107	With whom you are living now?	Living with husband..... 1 Living with male sexual partner ..... 2 Living without sexual partner ..... 3 Others (Specify).....96 No response ..... 99	
108	During the past one-month how often have you had drinks containing alcohol?  (Such as beer, local beer etc.)	Every day..... 1 More than once a week ..... 2 Less than once a week..... 3 Never drink..... 4 Others (Specify).....96 No response ..... 99	
109	Have you ever heard about the methods of family planning?	Yes.....1 No.....2	→ 111
110	If yes, which methods do you know?	.....	
111	Are you currently using any family planning methods?	Yes.....1 No.....2	→ 201
112	If yes, which method are you using currently?	.....	

## 2.0 DRUG USE

Q.N.	Questions	Coding Categories	Skip to																																																																																																																													
201	How long have you been using drugs?  (Drug means medicine not used for treatment purpose rather used for Intoxication)	Year..... <input type="text"/> <input type="text"/> Months..... <input type="text"/> <input type="text"/> No response .....99																																																																																																																														
202	How old were you when you first injected drugs? (Include self-injection or injection by another)	Years ..... <input type="text"/> <input type="text"/> (write the completed years)																																																																																																																														
203	How long have you been injecting drugs?  (Include self-injection or injection by others)	Years..... <input type="text"/> <input type="text"/> Months..... <input type="text"/> <input type="text"/> No response .....99																																																																																																																														
203.1	Have you injected drugs in the last month?	Yes.....1 No .....2	→ 204																																																																																																																													
203.2	If Yes, have you used previously used syringe /non-sterile syringe/needle in the last month?	Yes.....1 No .....2																																																																																																																														
204	Which of the following types of drugs have you used and/or injected in the past one-week? (Read the list, multiple answer possible)																																																																																																																															
		<table border="1"> <thead> <tr> <th rowspan="2">Description</th> <th colspan="4">Used in Last-Week</th> <th colspan="4">Injected in Last-Week</th> </tr> <tr> <th>YES</th> <th>NO</th> <th>DK</th> <th>NR</th> <th>YES</th> <th>NO</th> <th>DK</th> <th>NR</th> </tr> </thead> <tbody> <tr> <td>1. Tidigesic/Noorphine/Nufine/Lupegesic</td> <td></td> <td></td> <td></td> <td></td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> </tr> <tr> <td>2. Brown Sugar/White Sugar</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> </tr> <tr> <td>3. Nitrosun/ Nitrovate</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> </tr> <tr> <td>4. Ganja/Chares</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>5. Phensydyl+Corex</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>6. Calmpose/Diazepam/Velium 10</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> </tr> <tr> <td>7. Codeine</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> </tr> <tr> <td>8. Phenergan/Stagon</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> </tr> <tr> <td>9. Cocaine/Cracks</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>10. Proxygin/Proxyvon</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> </tr> <tr> <td>11. Effidin</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> </tr> <tr> <td>12. Lysergic Acid/ Dithylamide(LSD)</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Description	Used in Last-Week				Injected in Last-Week				YES	NO	DK	NR	YES	NO	DK	NR	1. Tidigesic/Noorphine/Nufine/Lupegesic					1	2	98	99	2. Brown Sugar/White Sugar	1	2	98	99	1	2	98	99	3. Nitrosun/ Nitrovate	1	2	98	99	1	2	98	99	4. Ganja/Chares	1	2	98	99					5. Phensydyl+Corex	1	2	98	99					6. Calmpose/Diazepam/Velium 10	1	2	98	99	1	2	98	99	7. Codeine	1	2	98	99	1	2	98	99	8. Phenergan/Stagon	1	2	98	99	1	2	98	99	9. Cocaine/Cracks	1	2	98	99					10. Proxygin/Proxyvon	1	2	98	99	1	2	98	99	11. Effidin	1	2	98	99	1	2	98	99	12. Lysergic Acid/ Dithylamide(LSD)	1	2	98	99					
Description	Used in Last-Week				Injected in Last-Week																																																																																																																											
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12. Lysergic Acid/ Dithylamide(LSD)	1	2	98	99																																																																																																																												

	13. Avil/Algic	1	2	98	99	1	2	98	99	
	14. Amphetamine /Yava/Ice	1	2	98	99	1	2	98	99	
	96. Others (Specify)	1	2	98	99	1	2	98	99	
204.0.1	Have you used these drugs in combination form?	Yes.....1 No .....2 No response .....99						→	204.1	
204.0.2	If yes, how many drugs has been used?	<input type="text"/> (numbers)								
204.0.3	What are the most frequently combination that is used?	.....(Specify)								
204.1	In the last month, did you switch from one drug to another?	Yes.....1 No.....2						→	205	

Q.N.	Questions	Coding Categories	Skip to
204.1.1	If yes, which drug?	From _____ drug To _____ drug	
204.1.2	What is the reason for switching?	To decrease Tidigesic.....1 Costly.....2 Difficult to find drugs.....3 Others.....96	
205	How many times did you inject drugs yesterday?	Times..... <input type="text"/> <input type="text"/> Not injected .....0	→ 207
206	Would you like to tell me why you did not Inject yesterday?	Due to lack of Money.....1 Want to quit slowly.....2 Had taken Ganja.....3 Had taken Brown Sugar.....4 Had injected previous day.....5 Had taken alcohol.....6 Did not find Drugs.....7 Was under police custody.....8 Had taken Nitrosun.....9 Was Sick.....10 Had taken other drugs.....11 Was busy in household activity.....12 Others (Specify).....96	
207	How many days ago did you inject?	Days ago ..... <input type="text"/> <input type="text"/>	
208	During the past one-week how often would you say you injected drugs?	Once a week .....1 2-3 times a week.....2 4-6 times a week.....3 Once a day .....4 2-3 times a day .....5 4 or more times a day.....6 Not injected in the last week.....7 Don't know .....98 No response .....99	
209	(Ask whether the respondent was ever arrested or not then ask the following questions) Have you ever been imprisoned or detained for any reason?	Yes.....1 No .....2 No response .....99	→ 210
209.1	In the past year, how many times have you been Imprisoned for drug-related reason?	Times ..... <input type="text"/> <input type="text"/> No response .....99	
209.2	Have you ever-injected drugs while in prison?	Yes.....1 No .....2 No response .....99	
210	How often you cross the border (Indo-Nepal) to buy and use the illicit drugs in the past 12 months?	.....	

### 3.0 NEEDLE SHARING BEHAVIORS

Q.N.	Questions	Coding Categories	Skip to
301	Think about the times, you have injected drugs Yesterday/last day. How many times did you inject drugs on that day? <b>(Fill the number from answer to Q. 205 and verify by asking the respondent)</b>	Times..... <input type="text"/> <input type="text"/>	
302	The last time you injected, how did you get that syringe/needle?	My friend/relative gave it to me after his use .....1 Unknown person gave it to me after he use.....2 I picked it up from a public place which was left there by others .....3 I picked it up from a public place which was left there by myself .....4 I used a new needle/syringe given by NGO staff/volunteer.....5 I used a needle/syringe which I purchased.....6 I reused my own needle/syringe .....7 My friend gave new needle/syringe.....8 Others (Specify).....96 Don't know.....98 No response .....99	
303	If you were in a group the last time that you injected, how many different people in the group do you think used the same syringe/needle?	No of person: ..... <input type="text"/> <input type="text"/> Injected alone .....95	

Q.N.	Questions	Coding Categories	Skip to																																			
304	Think about the times, you have injected drugs during the past one-week. How often was it with a needle or syringe that had previously been used by someone else?	Every times.....1 Almost every-times .....2 Sometimes .....3 Never used.....4 Not injected in the last week .....5 Don't know .....98 No response .....99	→311																																			
305	When you injected drug during the past week, how often did you use a syringe/needle that had been left in public place? <b>(Public place means places other than the PWIDs home that are used to hide syringe/ needle)</b>	Every times.....1 Almost every-times .....2 Sometimes.....3 Never .....4 Don't know .....98 No response .....99																																				
306	With how many different injecting partners did you share needles or syringes in the past one week? <b>(Count everyone who injected from the same syringe)</b>	No. of partners..... <input type="text"/> <input type="text"/> Don't know.....98 No response.....99																																				
307	In the past one-week, did you ever share needles and syringes with any of the following? <b>Read out list. Multiple answers possible</b>	<table border="1"> <thead> <tr> <th></th> <th>Yes</th> <th>No</th> <th>DK</th> <th>NR</th> </tr> </thead> <tbody> <tr> <td>1.Your usual sexual partner</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> </tr> <tr> <td>2.A sexual partner who you did not know</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> </tr> <tr> <td>3.A friend</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> </tr> <tr> <td>4.A drugs seller</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> </tr> <tr> <td>5.Unknown Person</td> <td>1</td> <td>2</td> <td>98</td> <td>99</td> </tr> <tr> <td>96. Other (Specify) _____</td> <td>1</td> <td>2</td> <td></td> <td></td> </tr> </tbody> </table>		Yes	No	DK	NR	1.Your usual sexual partner	1	2	98	99	2.A sexual partner who you did not know	1	2	98	99	3.A friend	1	2	98	99	4.A drugs seller	1	2	98	99	5.Unknown Person	1	2	98	99	96. Other (Specify) _____	1	2			
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5.Unknown Person	1	2	98	99																																		
96. Other (Specify) _____	1	2																																				



308	In the past one-week, how often did you give a needle or syringe to someone else, after you had already used it?	Every times.....1 Almost every-times .....2 Sometimes.....3 Never .....4 Don't know .....98 No response .....99	
309	In the past-week, did you ever inject with a pre-filled syringe? <b>(By that I mean a syringe that was filled without you witnessing it)</b>	Yes..... 1 No ..... 2 Don't' know .....98 No response.....99	

Q.N.	Questions	Coding Categories	Skip to
310	In the past one-week, how often did you inject drugs using a syringe after someone else had squirted drugs into it from his/her used syringe? <b>(Front-loading/back-loading/splitting)</b>	Every times..... 1 Almost every-times ..... 2 Sometimes ..... 3 Never ..... 4 Don't know ..... 98 No response ..... 99	
311	Can you obtain new, unused needles and syringes when you need them?	Yes..... 1 No ..... 2 Don't' know.....98 No response ..... 99	} 316
312	Where can you obtain new unused needles and syringes? <b>(Do not read out list. Multiple answers possible. Probe only with "Anywhere Else?")</b>	Drugstore.....1 Other shop .....2 Health worker.....3 Hospital .....4 Drug wholesaler/drug agency .....5 Family/relatives.....6 Sexual partner.....7 Friends .....8 Other drugs users.....9 Drugs seller.....10 Needle exchange program of .....11 <b>(write the name of Organization)</b> Steal from legitimate source (hospital./pharmacy).....12 Buy on streets .....13 Other (Specify) .....96	
313	What do you usually do with your used needle/ syringe?	Disposed .....1 Gave to friend.....2 Kept/carry safely for another use.....3 Hide in public places .....4 Threw anywhere (please specify).....5 Others (specify).....96 Don't know .....98	

Q.N.	Questions	Coding Categories	Skip to
314	In the past one-year, did you ever inject drug in another city/district (or another country)?	Yes..... 1 No .....2 Don't' remember.....98 No response .....99	
315	Are you currently under treatment (or receiving help) or have you ever received treatment (or help) because of your drug use?	Currently under treatment .....1 Was in treatment but not now.....2 Have never received treatment. ....3 No response .....99	} 401
316	How many months ago did you last receive treatment or help for your drug use?	Months ..... <input type="text"/> <input type="text"/> Don't know .....98 No response .....99	

#### 4.0 SEXUAL HISTORY

Q.N.	Questions	Coding Categories	Skip to
401	How old were you at your first sexual Intercourse?	Years old ..... <input type="text"/> <input type="text"/> <i>(Write completed years)</i> Never had sexual intercourse .....0 Don't know .....98 No response .....99	601
402	Have you had sexual intercourse in the last 12 months?	Yes .....1 No .....2 No response .....99	
403	In total, how many different male sexual partners have you had sex in the last 12 months?	Number..... <input type="text"/> <input type="text"/>	
403.1	How many were male "regular partners"? <b>(Your husband or live-in sexual partners)</b>	Number..... <input type="text"/> <input type="text"/> Don't know.....98 No response.....99	
403.2	Did your male regular partner also inject drugs?	Yes .....1 No .....2 Don't know .....98 No response .....99	
404	How many were male "non-regular partners"? <b>(Sexual partners, you are not married to and have never lived with and did not have sex in exchange for money)</b>	Number ..... <input type="text"/> <input type="text"/> Don't know .....98 No response .....99	
404.1	Did your casual male partner also inject drugs?	Yes .....1 No .....2 Don't know .....98 No response .....99	
405	The last time you had anal/vaginal/oral sex with a male sex partner did you and your partner use a condom?	Yes .....1 No .....2 Don't Know .....98 No response .....99	
406	Did you have a sexual intercourse with men in exchange for money or drugs in last 12 months?	Yes .....1 No .....2 Don't know.....98 No Response.....99	501
406.1	With how many male partners you had sex in last month by paying them money or drugs	Number .. <input type="text"/> <input type="text"/> Don't know .....98 No response .....99	
406.2	The last time you had anal/vaginal/oral sex with a male partner in exchange for money or drugs; did you or your partner use a condom?	Yes .....1 No .....2 Don't know .....98 No response .....99	

### 5.0 USES AND AVAILABILITY OF CONDOM

501	Have you ever used a condom?	Yes .....1 No .....2 Don't know .....98 No response .....99	
502	Do you know of any place or person from which you can obtain condom?	Yes .....1 No .....2 No response .....99	601

503	From which place or people, can you obtain condoms?  <b>(Multiple answer possible. Don't read the list but probe)</b>	Shop..... 1 Pharmacy ..... 2 Clinic ..... 3 Hospital ..... 4 Family planning center ..... 5 Bar/Guest house/Hotel ..... 6 Health worker ..... 7 Peer Educator/Outreach doctor..... 8 Friend ..... 9 <i>Pan Pasa</i> ..... 10 Others (Specify)..... 96 No response ..... 99	
503.1	Did any organization give you condom in the last 12 months?	Yes, free of cost..... 1 Yes, by taking money..... 2 No ..... 3	
504	Do you usually carry condom with you?	Yes..... 1 No ..... 2	
505	At this moment how many condoms do you have at-hand with you?	Numbers..... <input type="text"/> <input type="text"/>	

## 6.0 KNOWLEDGE AND TREATMENT OF STIs

Q. N.	Questions	Coding Categories	Skip to
601	Have you ever heard of diseases that can be transmitted through sexual intercourse?	Yes..... 1 No ..... 2 No response ..... 99	603
602	Can you describe any symptoms of STIs in women?  <b>(Do not read possible answers, multiple answers possible.)</b>	Lower abdominal pain ..... 1 Genital discharge..... 2 Foul smelling..... 3 Burning pain on urination ..... 4 Genital ulcers/sore..... 5 Swelling in groin area ..... 6 Itching..... 7 Other (Specify) ..... 96 Don't know ..... 98 No response ..... 99	
603	Have you had genital discharge/burning urination during the last 12 months?	Yes..... 1 No ..... 2 Don't know ..... 98 No response ..... 99	604
603.1	Currently, do you have genital discharge/burning urination problem?	Yes..... 1 No ..... 2 Don't know ..... 98 No response ..... 99	
604	Have you had a genital ulcer/sore blister during the last 12 months?	Yes..... 1 No ..... 2 Don't know ..... 98 No response ..... 99	605
604.1	Currently, do you have genital ulcer/sore blister?	Yes..... 1 No ..... 2 Don't know ..... 98 No response ..... 99	
605	Last time you had a genital discharge/ burning urination or a genital ulcer/sore blister, where did you go for treatment?	Did not seek treatment ..... 1 With private doctor ..... 2 In hospital ..... 3 Never had such symptoms ..... 4 Others (Specify) ..... 96	

## 7.0 KNOWLEDGE, OPINIONS AND ATTITUDES ON HIV

Q. N.	Questions	Coding Categories	Skip to
-------	-----------	-------------------	---------

701	Have you ever heard of HIV or the disease called AIDS? <b>(Probe if the response if No)</b>	Yes.....1 No .....2 No response .....99	
702	Do you know anyone who is infected with HIV or who has died of AIDS?	Yes.....1 No .....2 No response .....99	} 704
703	Do you have close relative or close friend who is infected with HIV or has died of AIDS?	Yes, a close relative.....1 Yes, a close friend .....2 No .....3 No response .....99	

Q. N.	Questions	Coding Categories	Skip to
704	Can a person protect himself/herself from HIV, the virus that causes AIDS, by using a condom correctly during each sexual act?	Yes.....1 No .....2 Don't know .....98 No response .....99	
705	Can a person get HIV, from mosquito bites?	Yes.....1 No .....2 Don't know .....98 No response .....99	
706	Can a person protect himself/herself from HIV, by having only one uninfected faithful sex partner?	Yes.....1 No .....2 Don't know .....98 No response .....99	
707	Can a person protect himself/herself from HIV, by abstaining from sexual intercourse?	Yes.....1 No .....2 Don't know .....98 No response .....99	
708	Can a person get HIV, by sharing a meal with someone who is infected?	Yes.....1 No .....2 Don't know .....98 No response .....99	
709	Can a person get HIV, by getting injections with a needle that was already used by someone else?	Yes.....1 No .....2 Don't know .....98 No response .....99	
710	Can a person who inject drug protect himself/herself from HIV, the virus that causes AIDS, by switching to non-injecting drugs? <b>(Oral or inhaling drugs)</b>	Yes.....1 No .....2 Don't know .....98 No response .....99	
711	Can a pregnant woman infected with HIV transmit the virus to her unborn child?	Yes.....1 No .....2 Don't know .....98 No response .....99	} 713
712	What can a pregnant woman do to reduce the risk of transmission of HIV to her unborn child? <b>(Do not read the possible answers, multiple answer possible)</b>	Take medication (Antiretroviral) ..1 Others (Specify) .....96 Don't know .....98 No response .....99	
713	Can women with HIV transmit the virus to her newborn child through breast-feeding?	Yes.....1 No .....2 Don't know .....98 No response .....99	
713.1	Do you think a healthy-looking person can be infected with HIV?	Yes.....1 No .....2 Don't know .....98	
713.2	Can a person get HIV by shaking hand with an infected person?	Yes.....1 No .....2 Don't know .....98	
713.3	Can blood transfusion from an infected person to the other transmit HIV?	Yes.....1 No .....2 Don't know .....98	

714	Is it possible in your community for someone to have a confidential HIV test? <b>(By confidential, I mean that no one will know the result if you don't want him or her to know it.)</b>	Yes.....1 No .....2 Don't know .....98 No response .....99	
714.1	Do you know where to go for HIV test?	Yes.....1 No .....2	

Q. N.	Questions	Coding Categories	Skip to
715	Have you ever had an HIV test?	Yes.....1 No .....2 No response .....99	801
716	Did you voluntarily take up the HIV test, or were you required to have the test?	Voluntary.....1 Required .....2 No response .....99	
717	When did you have your most recent HIV test?	Within the past 12 months .....1 Between 13-24 months.....2 Between 25-48 months.....3 More than 48 months .....4 Don't know .....98 No response .....99	
717.1	How many times have you undergone for HIV test within the last 12 months?	..... Times	
718	Did you find out the result of your HIV test?	Yes.....1 No .....2 No response .....99	801 801
718.1	What was the result of your last test?	Positive.....1 Negative.....2 Uncertain.....3 Result not received.....4 Don't know.....98 No response.....99	801 719 801
718.2	Did you go to HTC for HIV care once you knew you were HIV positive?	Went.....1 Did not go.....2 Don't know.....98 No response.....99	801
718.3	Why didn't you go to HTC for HIV care even after knowing you were HIV positive?	Felt I was healthy.....1 Others might know.....2 Had to pay.....3 Bad attitude of healthcare provider..4 Long waiting time/Could not manage with Clinic opening time.....5 Others (Specify).....96 Don't know.....98 No response.....99	801
719	Why did you not receive the test result?	Sure of not being infected .....1 Afraid of result .....2 Felt unnecessary .....3 Forgot it .....4 Others (Specify) .....96	

## 8.0 KNOWLEDGE OF HEPATITIS C

I am going to ask you to answer some questions about your general knowledge of Hepatitis C.

Q. N.	Questio	Response categories	Skip to
801	Can Hepatitis C be transmitted through sex?	Yes .....1 No .....2 Don't know .....98	

802	Can Condoms protect you against hepatitis C?	Yes .....1 No .....2 Don't know .....98	
803	Can Hepatitis C only occur if you have HIV?	Yes .....1 No .....2 Don't know .....98	
804	Can sharing needles transmit Hepatitis C?	Yes .....1 No .....2 Don't know .....98	
805	Can Hepatitis C be transmitted through tattooing?	Yes .....1 No .....2 Don't know .....98	
806	Is there a medical treatment for hepatitis C?	Yes .....1 No .....2 Don't know .....98	
807	Can herbal remedies cure hepatitis C?	Yes .....1 No .....2 Don't know .....98	

### 9. KNOWLEDGE AND PARTICIPATION IN STI AND HIV PROGRAMS

Q. N.	Questions	Coding Categories	Skip to
901	Have you met or discussed or interacted with Peer Educators (PE) or Outreach Educators (OE) or Community Mobilizers (CM) or Community Educators (CE) in the last 12 months?	Yes.....1 No .....2 No response .....99	→ 904
902	What activities did these PE or OEs involve you in when you met them?  <b>(Multiple answers. DO NOT READ the possible answers)</b>	Discussion on how HIV/AIDS is/isn't transmitted. ....1 Discussion on how STI is/isn't transmitted.....2 Discussion on safe injecting behavior .....3 Regular/non-regular use of condom .....4 Demonstration on using condom correctly.....5 Others (Specify)_____96	

903	How many times have these PE, OE, CM and/or CE met you in the last 12 months?	Once.....1 2-3 times .....2 4-6 times .....3 7-12 times .....4 More than 12 times.....5	
904	Have you visited or been to any outreach center (DIC, IC or CC) in the last 12 months? Drop-In Center (DIC), Information Center (IC), Counseling Center (CC)	Yes .....1 No .....2	→ 907
905	What did you do when you went to the out reach center (DIC, IC or CC) in the 12 last months?  <b>(Multiple answers. DO NOT READ the possible answers)</b>	Went to collect condoms.....1 Went to learn the correct way of using condom .....2 Went to learn about the safe injecting behavior .....3 Went to watch film on HIV/AIDS.....4 Participated in discussion on HIV transmission .....5 Went to have new syringe.....6 Other (Specify)_____96	

906	How many times have you visited out reach centers (DIC, IC or CC) in the last 12 months?	Once.....1 2-3 times .....2 4-6 times .....3 7-12 times .....4 More than 12 times.....5	
907	Have you visited any STI clinic in the last 12 months?	Yes .....1 No .....2	→ 910

908	What did you do when you visited such STI clinic?  <b>(Multiple answers. DO NOT READ the possible answers given below)</b>	Blood tested for STI.....1 Physical examination conducted for STI identification.....2 Discussion on how STI is/isn't transmitted.....3 Discussion on safe injecting behavior .....4 Regular/non-regular use of Condom .....5 Took a friend with me.....6 Other (Specify) .....96	
909	How many times have you visited STI clinic in the last 12 months?	Once.....1 2-3 times .....2 4-6 times .....3 7-12 times .....4 More than 12 times.....5	
910	Have you visited any HTC (HIV testing and counselling center) ?	Yes .....1 No .....2	→ 913
911	What did you do when you visited such HTCs ?  <b>(Multiple answers. DO NOT READ the possible answers)</b>	Received pre-HIV/AIDS test counseling.....1 Blood sample taken for HIV/AIDS test .....2 Received post HIV/AIDS test counseling.....3 Received information on safe injecting behavior .....4 Received HIV/AIDS test result .....5 Received counseling on using condom correctly in each sexual intercourse .....6 Received information on HIV/AIDS window period .....7 Took a friend with me.....8 Other (Specify) ..... 96	

Q. N.	Questions	Coding Categories	Skip to
912	For how many times have you visited HTC center in the last 12 months?	Once.....1 2-3 times .....2 4-6 times .....3 7-12 times .....4 More than 12 times.....5	
913	Have you ever enrolled into any Opioid substitution Therapy (OST): Methadone and Buprenorphine?	Yes .....1 No .....2 Don't Know.....98 No response .....99	} End the Interview

913.1	Have you received any Opioid substitution Therapy (OST) in the past 12 months?	Yes.....1 No .....2 Don't Know.....98 No response .....99	} End the Interview
913.2	Which service have you received?	Methadone .....1 Buprenorphine.....2 Others (Specify)..... 96	
913.3	Are you still in therapy?	Yes.....1 No .....2 Don't know.....98 No response .....99	} End the Interview
913.4	What amount have you been receiving per day?	Methadone.....ml Buprenorphine..... mg.	
913.5	How long have you been in this therapy?	..... Years ..... Months	

**Thank You!!**



## **ANNEX-2**

### **2016 IBBS Survey Formative Assessment Questionnaires**

We are conducting formative assessment to address the following issues at the beginning of the IBBS survey:

- a. Decide whether respondent driven sampling (RDS) is an appropriate sampling method for the population being studied (is the survey population socially networked?)
- b. Identify subpopulations of interest and help select subsets for seeds identify individual seeds. For example different subgroups of sexual minorities in Nepal are gay men, ta and metis etc.
- c. Define logistical issues (appropriate incentive, interview locations)
- d. Inform materials development e.g. coupons, survey questions.

#### **Methods**

We will use following methods to gather information to answer aforementioned issues:

- a. In-depth interviews with possible survey population;
- b. Key informant (or expert) interviews. For example: key officials of organisations working with People who inject drug(especially female IDUs)  
Observation;
- c. Review of existing information.

#### **Key formative assessment topics for respondent driven sampling**

- a. Social network properties
- b. Acceptability of RDS to the PWIDs (Female)
- c. Seed selection
- d. Survey procedures
- a. Questions about social network**
  - i. Do you know or spend time with other survey population members?
  - ii. How many women do you know who also know you, they currently inject drugs, they are 16 years and they live in Kathmandu valley? How many of these women have you seen in the past month?
  - iii. Please tell me about how your injecting friends and acquaintances interact with each other. What activities do they do together?

- iv. Do female injecting drug users go out together when they are not working/injecting?
- v. The following questions are asked to understand whether cross recruitment (of key characteristic such as living area or age etc) will happen or not during data collection.

If you suspect that female injecting drug users form distinct geographical social networks, ask:

Do you know female injecting drug users who work in/are from other survey district?

If you suspect that female injecting drug users form distinct social network types, ask:

Do you know female injecting drug users who are of a type different from you [e.g. older versus younger female injecting drug users]?

**b. Questions about survey acceptability**

- i. Would you (or your peers) be willing to participate in IBBS survey?
- ii. Why or why not?
- iii. What seems most/least interesting about IBBS survey?
- iv. Would you be willing to recruit your peers into IBBS survey?
- v. How many coupons out of three could you give to your peers that they would actually redeem?
- vi. What might prevent your peers from participating in the survey?
- vii. Will you (or your peers) participate if the IBBS survey includes HIV/STI tests?
- viii. How would you encourage a friend to join the IBBS survey? Especially one who is reluctant?

**c. Questions about seeds**

- i. Can you think of any female injecting drug users who would make good seeds (describe seeds)?
- ii. Do you know different types of female injecting drug users (who are diverse in age, income, risk, etc.)?
- iii. What would be the best way to locate female injecting drug users to be seeds for our survey?

- iv. Are there nongovernmental organizations or other groups that work with female injecting drug users?
- v. Have other outreach programmes used female injecting drug users to contact other female injecting drug users?
- vi. Can you help us contact female injecting drug users?

**d. Questions about survey procedures**

- i. Do you think \_\_\_\_ (local currency or item of monetary value) is sufficient to encourage female injecting drug users to participate in an IBBS survey?
- ii. About how much would transport cost to get to the IBBS survey site?
- iii. What hours/days are most convenient for female injecting drug users to participate in an IBBS survey?
- iv. How can female injecting drug users get to the IBBS survey site?
- v. Is it easy for female injecting drug users to get here on public transport?
- vi. Do you think female injecting drug users are willing to be interviewed at the same survey site during the same hours as other members?
- vii. What type of survey site would be most comfortable for female injecting drug users to go to?  
Do you prefer men, women staff conducting the survey?
- viii. Describe the type of person with whom you would feel most comfortable answering personal questions?
- ix. Describe the type of person with whom you would feel most comfortable taking biological specimens from you (e.g. a rectal swab)?
- x. Is there a local nongovernmental organization that you know of with people willing to work in this survey?
- xi. Do most of your peers read?
- xii. What colours are appropriate for the coupon?
- xiii. Coupons are about the size of \_\_\_\_, do you think they should be smaller or larger? (display used coupon of past IBBS survey)
- xiv. What kinds of information should be included on the coupons?
- xv. Do you think a map on the coupon is helpful for finding the survey site?

Note: Aforementioned methods are adapted from the standard surveillance guidelines- Johnston L. Introduction to HIV/AIDS and sexually transmitted infection surveillance.

**ANNEX 3:**

**Formative Assessment on  
Integrated Biological and Behavioral Survey (IBBS) among  
female PWIDs of Kathmandu Valley, Nepal, 2016**

**Submitted To:**

Save the Children US/Global Fund  
Airport Gate Area, Sinamangal, Kathmandu, Nepal

**Submitted By:**

School of Planning, Monitoring, Evaluation and Research  
(SPMER)  
Kalanki, Kathmandu

May 2016

## ACKNOWLEDGEMENT

The successful execution and completion of the formative assessment is an outcome of the collective efforts of the assessment team; valuable guidance and support from National Centre for AIDS and STD Control (NCASC), Save the Children/GF, Community organizations, consultant and Female PWIDs.

We would like to acknowledge NCASC for their valuable technical guidance and Save the Children US for their technical and financial support for implementing formative assessment. We are also grateful to NCASC Mr. Bir Bahadur Rawal, SITWG focal person. Furthermore, we are proud to Save the Children Mr. Rajan Bhattraï, Mr. Madhav Chaulagani, Mr. Rajan Shrestha and Mr. Bishnu Shrestha for their support, especially in providing valuable suggestions and feed backs to carry out this assessment.

We are also thankful to consultant Mr. Keshab Deuba for his kind support and suggestions during the entire course of the assessment period. We would like to express our heartfelt gratitude to community based organizations for their kind support and valuable contribution for the successful completion of this assessment. Our sincere thanks go to all field researchers who enormously helped us by collecting valuable information required for this assessment.

We are very grateful to all those respondents (female PWIDs) who spent their valuable time for the interviews and shared their personal experiences with the assessment team without whose help this assessment might not have been completed.

We strongly believe that the findings of this assessment will be useful for the implement IBBS survey among female PWIDs in Kathmandu valley.

Assessment Team

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## 1. Introduction

Nepal's HIV epidemic is concentrated amongst the Key Affected Populations (KAPs). The existing National HIV and AIDS Strategy (2011-2016) identifies People who Inject Drugs (PWIDs) as one of the key affected populations (KAPs).<sup>1</sup> PWIDs practice high-risk behaviors such as sharing of Needle/Syringe between injecting partners and also have habits of reusing needle/syringes previously used by them or those kept in public places. These high-risk injecting behaviors including high-risk sexual behaviors, use of multiple drugs make them more prone to HIV/STIs/HBV/HCV. The female PWIDs are with increasing vulnerability to HIV as they share the needle with their sexual partners, involvement in sex work to support injecting behavior and sexual exploitation.<sup>2</sup>

National Centre for AIDS and STD Control (NCASC) along with Save the Children US/Global Fund have planned to conduct Integrated Biological and Behavioral survey among female PWIDs of Kathmandu valley for the first time to find out the HIV and STIs prevalence, their risk behaviors, knowledge on HIV and other STIs, exposures to programs, stigma and discrimination among female PWIDs population. School of Planning, Monitoring, Evaluation and Research has been implementing this survey. In this context, School of PMER conducted formative assessment to identify the appropriate sampling method for implementing the IBBS survey among female PWIDs in Kathmandu valley.

## 2. Goal and Objectives

This formative assessment is aimed at deciding the appropriate method for conducting IBBS survey among female PWIDs in Kathmandu valley. The specific objectives are:

- To identify the appropriate method for IBBS among female PWIDs.
- To describe the social networks of the female PWIDs population
- To identify the appropriate interview location and other survey procedures
- To seek support from the concerned stakeholders on identifying the proper seeds

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<sup>1</sup> Annual Report; 2071/2072: Department of Health Services, Ministry of health and Population, Teku; Kathmandu

<sup>2</sup>National Targeted Intervention Operational Guidelines; Injecting Drug Users; 2010: National Centre for AIDs and STD Control, Teku Kathmandu

### 3. Methods

#### 1.3 3.1 Study Design

A cross sectional study with qualitative method was used in this formative assessment. The data were collected from April 21 to May 2 2016.

#### 1.4

#### 3.2 Study Population

The study population was the female PWIDs living in Kathmandu valley and key stakeholders and experts working with female PWIDs.

#### 1.5 3.3 Data collection Procedures

Data collection tool was developed based on the previous practices. All the questions were open ended. This tool was used both in In-depth Interviews and Key Informant interviews. The social network properties of female PWIDs population, appropriateness of sampling method for the IBBS survey among female PWIDs and survey procedures were the key components of the assessment. The information was collected using following data collection procedures:

##### I. In-depth Interviews with female PWIDs

The face-to-face interviews were conducted with the female PWIDs using this tools and their opinion was noted. Female PWIDs linked by different organisations were interviewed using the assessment tools.

##### II. Key informant interviews with experts

The Key Informant interviews with experts working with PWIDs, Drop In Centre supervisor, Networks/Association members, outreach workers, counsellors, Executive of organisation working for female PWIDs etc was conducted.

##### III. Observations

The different organisations working in the sector of female PWIDs was observed along with some DICs. The research walk for observing the female PWIDs population was done in some of the key places notified by the stakeholders.

##### IV. Review of existing information and meeting with key stakeholders

The existing information available on female PWIDs was reviewed. The meeting with key stakeholders were done in their office premises to seek support from them during the survey and also to discuss on the existing information, sampling and other logistic issues of the survey such as incentive, interview locations, questionnaires and coupons etc.

#### 1.6 3.4 Key Issues of the Assessment

The key issues included in the assessment were:

- a. Social network Properties of female PWIDs
- b. Acceptability of Respondent Driven Sampling (RDS) to the female PWIDs
- c. Seed selection during the Survey
- d. Survey Procedures



### **1.7 3.5 Sample**

Altogether, 5 key stakeholders identified working for the female PWIDs were purposively selected for the assessment namely Sparsha Nepal, Youth Vision, Sarathi Nepal, Drishti Nepal, Recovering Nepal.

Similarly, the key informant interviews of 10 experts were conducted. The key informants interviewed in this assessment were 1. Mr. Sushil Khatri (Sparsha Nepal), 2. Bishnu Sharma (Recovering Nepal), 3. Rajendra Thapa (Youth Vision), 4. Dolkar Ghale (Youth Vision), 5. Sajita Malla (Youth Vision), 6. Lisa Lama (Dristi Nepal) , 7. Ravi Krishna Shrestha (Sarathi Nepal), 8. Siddhi Shrestha (Sarathi Nepal) 9. Srijana Rai (NDUPA) 10. Sarmila Baidhya (Sparsha Nepal).The key stakeholders referred to some of the stakeholders during the assessment process were also included in the assessment.

The 3 PWIDs identified with the help of stakeholders working in this sector were included in the assessment. The personal identifications of those PWIDs interviewed were not taken for ethical considerations.

The meeting with 4 key stakeholders' organizations working with the female PWIDs population was also organized.

### **1.8 3.6 Data management and analysis**

The qualitative data from the In-depth interviews and Key informants' interviews were managed and analyzed manually using thematic analysis methods. The key observations were noted and reviews of existing information regarding female PWIDs were web searched and key issues were mentioned using proper citations.

### **1.9 3.7 Ethical Considerations**

The research ethics was followed throughout the assessment process. The personal identifications (such as name and phone numbers) of female PWIDs were not taken during the in-depth interviews. The data obtained were not shared with others than involved in this research process. The oral informed consent was taken with all the study participants before starting of interviews. The School of PMER reimbursed the travel costs of female PWIDs.

## **4. Results**

### **1.10 i) Results from In-depth interviews with female PWIDs**

#### **a) Social network Properties**

In-depth interviews revealed that female PWIDs spend their time with other female PWIDs and mainly with other male PWIDs. They knew 5 to 10 other female PWIDs who are aged of 16 years and above. They generally spend time with male PWIDs as they can help them hunting the drugs. Most of them rely on male for getting drugs and female PWIDs don't want to expose. They inject together in each other's residents, go for hunting of drugs together, go for outings/roaming together and sometimes go for tea and smoking together. They were from Kathmandu valley and no such distinct geographical social networks were suspected. However, one of them has her friend in Pokhara and used to visit her.

### **b) RDS method Acceptability for the Survey**

Participants recommended that the RDS method may not be best practice to recruit PWIDs in the survey because this group has poor social network and they do not want to expose in the public. All of the participants of In-depth interviews would be willing to participate in the survey and they also shared that their peers will also be participated in the survey if survey site will be established at convenient place. They would be willing to recruit their peers into the IBBS survey and they said that they could give one or two coupons and hope they would participate. The hunting time, long walking distance to the survey sites, less money and fear of exposure are the major barriers for participating in the survey. They insisted that only HIV/STI tests would not motivate them for participating as they are getting these services free of cost from different organisations. All the participants replied that they would encourage a friend to join the IBBS Survey and would try to convince the reluctant with the importance of the survey and the incentives.

### **c) Seed selection**

According to the assessment participants, they thought that the female PWIDs population would not make so good seeds because it cannot expand further to 5-10 persons from one seed. Mainly the teenagers are the newcomers among female PWIDs; hence one or two seeds should be given to newcomers. They insisted that seeds might be given using geographical location or using organisations working with the PWIDs but should be given in all small areas too. They were awared about few of the organisations working with female PWIDs.

### **d) Survey procedures**

PWIDs shared that the day time (10am to 5pm) is the most convenient for them to participate in the survey. They said that most of the survey population can go on their own or partner's bike or public transport and some may go on foot. The participants opined that they do not have any problem to be interviewed with other PWIDs at the same survey site and same hours. In their view, if possible, the existing DIC or places having access to everybody or separate sites would be most comfortable to participate in the survey. All of them preferred female members as more suitable for conducting all tasks of the survey. They added that most of their peers are educated and can read and write however some of them are illiterate. Their voices divided while asking about appropriate colour for coupon. One of them replied red; another one pink and other one thought that the colour doesn't matter. They said that the ATM sized coupon is feasible to keep inside the purse and further added that phone number and map of the survey site should also be placed. The map of the survey site in the coupon will be helpful for some of them. All the participants of In-depth interviews insisted that the amount should be increased because in their view that amount even do not cover their one dose.

## **1.11 ii) Results from Key Informant interviews with experts**

### **a) Social network Properties**

The Key Informants shared that they spend their time with female PWIDs while they visit DIC and their office for the services. The experts working closely with the female PWIDs knew around 25-30 and others knew 2-5 eligible survey population in Kathmandu valley. They said that the female PWIDs inject together in each other's residents, go for hunting of drugs together, manage money

together, go for outings/roaming together and sometimes go for tea and smoking together. They said that the female PWIDs have not super social networks and no any other distinct geographical social networks were suspected from the experts.

#### **b) RDS method Acceptability for the Survey**

The experts opined that the population of the female PWIDs is not so large and the shy nature of female itself makes them reluctant to expose. The major concern of all the experts was the sample size of the survey, as it was larger with compare to the survey population. They strongly suggested that the estimated sample size is impossible to reach hence to be reduced by more than half. The experts mentioned that the survey in the hunting time, long walking distance to the survey sites, laziness of survey population, low incentives and fear of exposure might avert the female PWIDs from participating in the survey. The experts insisted that HIV/STI tests would not motivate them for participating as they are getting these services free of cost from different organisations. All the participants replied that they would encourage the female PWIDs to join the IBBS survey and would try to convince the reluctant by explaining confidentiality, incentives, services they got and their contribution for such a good survey.

#### **c) Seed selection**

Most of the experts thought that seed selection and distribution is a vital for this kind of survey. They opined the fear of failure of this method, as there is not good network among female PWIDs. They further suggested to be implementing peer to peer reach networking sampling instead of seed selection and distribution. They were ready to help SPMER in conducting the survey. They further added that they will support to select operators or master to require the sample.

#### **d) Survey procedures**

The majority of experts replied that 10am to 5pm is the most convenient time for the survey. They opined that clinic should be established in confidential and convenient place to reduce transportation cost. The participants insisted that the PWIDS population have no problem to be interviewed with other members at the same survey site during the same hours. According to them, the existing or previous DIC or places having access to everybody and separate sites (low flow of public) would be most comfortable for the PWIDs-female population. All of them preferred that the female member should be placed for organizing all activities of the survey. They shared that most of the female PWIDs are literate however some of them are illiterate. Stakeholder's views found differed while asking about appropriate colour for coupon, majority of them replied that colour doesn't matter and few had said red, orange and pink. The size of the coupon used in previous round is okay and they further added that phone number of the clinic site and the map in the coupon will be helpful to find out clinic site easily. Very few of the key informants insisted that the amount given as incentive could be encouraging female PWIDs to visit survey site where most of them replied that this couldn't encourage the female PWIDs because the amount is very low than they expect.

### **1.12 iii) Results from Observations**

The DICs of Sparsha Nepal, Youth Vision and Sarathi Nepal were observed during the assessment process. The research walk for observing the female PWIDs

population was done in some of the key places notified by the stakeholders. Our observations also revealed that it is very hard to identify the female PWIDs population. They were observed spending time smoking and injecting together with their boys and girl friends in-group in a restaurant. Female PWIDs do not willing to expose hence they do not spend their time publicly; they feel safety at confidential premises.

### **1.13 iv) Results from review of *information and meeting with key stakeholders***

The review of information and meeting with key stakeholders discussed and come up with the following issues:

- The female PWIDs population has poor social network unlike the male PWIDs.
- The Respondent Driven Sampling is not appropriate sampling method for recruiting female PWIDs due to its low social network properties.
- The incentive given is low for this survey.
- The location of survey site should be nearby the current DIC or in place of previous DIC, nearby the Basantapur Sundhara or Ratna Park or in place of where study population can reach easily from public transport or in place where there are less crowd or lonely or separate places.
- The female PWIDs inject together with male rather than female, go in search of drugs together, manage money together, go for tea & smoking together but not in network as that of male PWIDs. And even if they have network that is limited to a small number and in a small place.
- Female PWIDs feel secure with male partner, hence they inject together with male partners.
- The main reason for not willing to participate in this survey will be the fear of exposure among female PWIDs.
- The stakeholders were ready to help from their places to conduct this survey successfully.
- Sample size is hard to reach and impossible so should be revisited.
- Phone number should also be included in the coupon so that it will be easy to locate the survey site.
- Operators should be selected on the geographical basis or population basis (where there is large population of female PWIDs) so that it can work well.
- All the key stakeholders were ready to help to select operators to requisite sample.
- Female are the best for interviewing and other survey procedures.

## **5. Conclusions and Recommendations**

The formative assessment concluded that the female PWIDs population has poor social network thus Respondent Driven sampling (RDS) is not an appropriate method for the data collection of IBBS survey among them. Although, the geographical consideration and close consultation with stakeholders during seed selection can make good seeds, the sample size cannot be reached. The basic requirements of the survey sites were establish on separate places maintaining confidentiality, easy access from public transports. Based on the results of formative assessments, following issues are recommended:

- The technical team should rethink about the Respondent Driven Sampling; SPMER would like to purpose the Network Sampling instead of RDS.
- Sample size should be reassessed as all the stakeholders considered 345 as impossible, hence technical committee re-calculated sample size for female PWID taking design effect 1.5 then the sample was 160.
- The incentives, being given is very low and should be discussed and increased up to 500.
- Phone numbers (easy to locate the survey site) and incentives should be included in the coupon to encourage the participant to take part in the survey.
- Women staff should be involved in all sections of IBBS survey.
- Key stakeholders should be involved during sample size and methods finalisation process.